SEDGWICK COUNTY, KANSAS

DIVISION OF FINANCE

Purchasing Department

604 N. Main, Suite F **Wichita, KS 67203** **Telephone (316) 383-7494** **Fax (316) 383-7055**

Request for Bid
03-0024
Rescue Truck

April 7, 2003

Dear Vendor:

Sedgwick County, Kansas (hereinafter referred to as "County") will accept bids for One (1) Rescue Truck for the Fire District. This request for bid provides a general description of the details of submittal requirements and terms and conditions of the Request for Bid.

Should you elect to participate, complete two (2) signed completed copies of the attached Response Form and return to Sedgwick County Purchasing Department, 604 N. Main, Suite F, Wichita, KS 67203, NO LATER THAN 1:45 p.m., (CDT) Tuesday, May 20, 2003.

On the Response Form due date, responses to this Request for Bid will be opened and read aloud at a public meeting. You or your representatives are welcome to attend.

Late or incomplete bids will not be accepted and will not receive consideration for final award.

_____

Carol Bevelhymer, C.P.M.
Purchasing Agent

REQUEST FOR BID CONDITIONS

In submitting a response to this Request for Bid, vendors hereby understand the following:

1. Sedgwick County reserves the right to reject any or all Bids and responses to these and/or related documents, to accept any item or items in the bids, to waive any irregularity in the bids, and further if determined to be non-responsive in any form, or if determined to be in the best interest of Sedgwick County.

2. Alternate Bids (two or more Bids submitted) will be considered for an award. Sedgwick County reserves the right to make the final determination of actual equivalency or suitability of such Bids with respect to requirements outlined herein. The bids submitted, and any further information acquired through interviews, will become and are to be considered a part of the final completed contract. If there is any variance or conflict, the Bid specifications will control.

3. Bidders MUST return two (2) signed, completed copies of the attached Response Form to Sedgwick County Purchasing Department, 604 North Main, Suite F, Wichita, KS 67203-3703, on or before the date and time specified. Bids must be sealed in an envelope, and marked with the firm name and address, Bid number, Bid opening date, and Bid opening time. The time of receipt will be determined by the time clock stamp in the Purchasing Department.

4. All project participants, consultants, engineers, and contractors, must comply with all applicable Federal, State and County laws pertaining to contracts entered into by governmental agencies, including non-discriminating employment.

5. Quotations submitted may not be withdrawn for a period of 60 days immediately following the opening of this *Request for* Bid. Prices MUST be free of federal, state, and local taxes unless otherwise imposed by a governmental body, and applicable to the material on the Bid.

6. Sedgwick County interprets the term "lowest responsible bidder/Bidder" as requiring Sedgwick County to: (a) choose between the kinds of materials, goods, wares, or services subject to the Bid, and (b) determine which Bid is most suitable for its intended use or purpose. Sedgwick County can consider, among other factors, such things as labor cost, service and parts availability, availability of materials and supplies, and maintenance costs of items upon which Bids are received.

7. All requested information must be supplied. If you cannot respond to any part of this request, state the reason you cannot respond. You may provide supplemental information to assist Sedgwick County in analyzing your Bid.

8. If the supplier refuses or fails to make deliveries of the materials within the times specified on the face of the *Request for Quotation* or purchase order, Sedgwick County may, by written notice, terminate the contract OR purchase order.

9. The supplier will certify and warrant that goods, personal property, chattels, and equipment sold and delivered are free and clear of any and all liens, or claims of liens, for materials or services arising under, and by virtue of the provisions of K.S.A. Sections 58-201, et seq., and any other lien, right, or claim of any nature or kind whatsoever.

10. The successful bidder will hold and save Sedgwick County, and its officers, agents, servants/employees harmless from liability of any patented, or unpatented invention, process, article, or appliance manufactured, or used in the performance of the contract, including its use by Sedgwick County.

11. All items furnished, if applicable, must be the best of their respective kinds, and will be free from defects in material and workmanship. Items will be subject to County inspection and approval at any time within 30 days after delivery. If a substitution is made, it will be the decision of Sedgwick County representative to determine if it is of equal quality. Items furnished must be manufactured in compliance with all existing legal or governmental directives.

12. All items must be properly packed, if applicable, to insure delivery in good condition, and in accordance with instructions listed on the face of the *Request for Quotation* or purchase order, if any.

13. Contracts entered into on the basis of submitted Bids are revokable if contrary to law.

14. The Bidder agrees to comply with K.S.A. 44-1030 which becomes a part of this contract, and reads as follows: "The Bidder hereby agrees that:
    a. He will observe the provision of the Kansas Commission on Human Rights and will not discriminate against any person in the performance of work under the present contract because of race, religion, color, sex, national origin, ancestry, or physical disability;
    b. In all solicitations or advertisements for employees, he will include the phrase, 'Equal Opportunity Employer,' or a similar phrase to be approved by the Kansas Commission on Human Rights;
    c. If he fails to comply with the manner in which he reports to the Kansas Commission on Human Rights, he will be deemed to have breached the present contract, and it may be canceled, terminated, or suspended, in whole or in part, by Sedgwick County;
    d. If he is found guilty of a violation of the Kansas Commission on Human Rights under a decision, or order of the Kansas Commission on Human Rights which has become final, he will be deemed to have breached the present contract, and it may be canceled, terminated, or suspended, in whole or in part, by Sedgwick County; and,
    e. He will include the provisions of subsections (a) through (d) inclusively of this paragraph in every subcontract or purchase order so that such provision will be binding upon such subcontractors or vendor.

15. The vendor responding to this bid solicitation proposes to furnish all materials, labor, supplies, equipment and incidentals necessary to provide the equipment/materials/services described herein in accordance with the Notification of Solicitation (if applicable), Request for Information (if applicable), Request for Quotation/Bid, Addenda, Contract, Bonds, Insurance, Plans, Specifications, Mandatory Requirements and Conditions.

16. It will be understood that the Bidder's sureties and insurers are subject to the approval of the County.

17. If a response to this Request for Bid, the Bidder agrees to execute and deliver to the County a contract in accordance with the Contract Documents (if applicable) within ten days of notice of the award to the Bidder. The Bidder agrees that the surety/deposit given concurrently herewith will become the property of the County in the event the Bidder fails to execute and deliver such contract within the specified time. In the further event of such failure, the Bidder will be liable for the County's actual damages that exceed the amount of the surety.

18. It will be understood that time is of the essence in the Bidder's performance. The Bidder agrees that the County's damages would be difficult or impossible to predict in the event of a default in the performance hereof; and it is therefore agreed that if the Bidder defaults in the performance of the Contract Documents, the Bidder will be liable for payment of the sums stipulated in the Contract Documents as liquidated damages, and not as a penalty.

19. The Bidder hereby certifies that he or she has carefully examined all of the Documents for the project, has carefully and thoroughly reviewed this Request for Bid/Quotation, has inspected the location of the project (if applicable), and understands the nature and scope of the work to be done; and that this Bid is based upon the terms, specifications, requirements, and conditions of the Request for Bid/ Documents. The Bidder further agrees that the performance time specified is a reasonable time, having carefully considered the nature and scope of the project as aforesaid.

20. It will be understood that any bid and any/all referencing information submitted in response to this Request for Bid/Quotation will become the property of Sedgwick County, and will not be returned. As a governmental entity, Sedgwick County is subject to making records available for disclosure after Board of County Commission approval of the recommendation.

21. Sedgwick County will not be responsible for any expenses incurred by any vendor in the development of a response to this Request for Bid/Quotation, including any onsite (or otherwise) interviews and/or presentations, and/or supplemental information provided, submitted, or given to Sedgwick County and/or its representatives. Further, Sedgwick County will reserve the right to cancel the work described herein prior to issuance and acceptance of any contractual agreement/purchase order by the recommended vendor even if the Board of County Commissioners has formally accepted a recommendation.

22. By submission of a response, the Bidder agrees that at the time of submittal, he or she: (1) has no interest (including financial benefit, commission, finder=s fee, or any other remuneration) and will not acquire any interest, either direct or indirect, that would conflict in any manner or degree with the performance of Bidder=s services, or (2) benefit from an award resulting in a >Conflict of Interest=. A >Conflict of Interest= will include holding or retaining membership, or employment, on a board, elected office, department, division or bureau, or committee sanctioned by and/or governed by the Sedgwick County Board of County Commissioners. Bidders will identify any interests, and the individuals involved, on separate paper with the response and will understand that the County, at the discretion of the Purchasing Director in consultation with the County Counselor, may reject their bid/quotation. The Bidder certifies that this bid is submitted without collusion, fraud or misrepresentation as to other Bidders, so that all bids for the project will result from free, open and competitive proposing among all vendors.

23. Unless specified otherwise, all items quoted are to be as a minimum but not necessarily limited to: new, current model year, and untitled prior to shipping and/or installation.

24. Sedgwick County will issue a purchase order/contract for the acquisition of products/services specified as a result of an award made in reference to this document. Contract documents will be subject to any regulations governed by the laws of the State of Kansas and any local resolutions specifically applicable to the purchase.

25. Any dispute arising out of the contract documents or their interpretation will be litigated only within the courts of the State of Kansas. No prepayment of any kind will be made prior to shipment. Payment will be made upon verification of delivery, compliance with specifications, assurance that the product/service performs as specified and warranted, and receipt of correct invoicing.

26. The Bidder must provide Sedgwick County with a toll-free telephone number, OR accept collect calls. FAX numbers should also be provided if available. Information regarding the procurement process may be obtained from Carol Bevelhymer, Purchasing Department, 604 North Main, Suite F, Wichita, KS 67203-3703, (316) 383-7494.

27. Sedgwick County will accept responses transmitted via a facsimile unless stated to the contrary within this document. Bids must be received prior to the time and dates listed to be considered responsive. Sedgwick County will not accept late responses and will return them to the sender. Further, Sedgwick County will NOT: (1) guarantee security of the document received; (2) be held responsible for Bids which are NOT legible (and may choose to reject such responses); and, (3) guarantee that the receiving facsimile machine will accept transmission or that phone lines are functioning and available for transmission. Submitting a Bid response via facsimile does NOT relieve the Bidder of: (1) responsibilities stated in the document (such as attendance at a mandatory pre-Bid conference); (2) providing non-paper informational items which must be returned with the response (diskettes, large drawings, photographs, models, etc.); and, (3) providing original copies of Bid sureties (bonds, certificates of insurance, etc.).

General Information

The purpose of this document is to select a Rescue Truck for the Sedgwick County Fire District, hereinafter called the "District", to provide and meet the requirements and needs of personnel and the citizens they serve.

It shall be the intent of these specification to cover the furnishing and delivery of a complete apparatus equipped as hereinafter specified. Apparatus bid shall meet the applicable requirements of the National Fire Protection Association (NFPA) as stated in the current edition at time of contract execution.

Bids shall only be considered from companies that have an established reputation in the field of fire apparatus construction and have been in business for a minimum of 20 years or 10,000 units worldwide. Further, vendors will maintain the following:

- 24/7 communication system in the event an emergency service problem arises.
- Dedicated service facility within 500 miles of Sedgwick County.
- Render prompt service and able to furnish replacement parts in a timely manner.
- Delivery time is a major factor, please state exactly when to expect delivery.
- Bids shall only be accepted from fire apparatus builders that design and manufacture their products using an integrated approach, including the chassis, cab and body being fabricated and assembled on the bidder's premises.

The vendor shall furnish satisfactory evidence of their ability to construct the apparatus specified and state where the apparatus is to be built. The bid shall be accompanied by a set of CAD drawings consisting of a detailed description of the apparatus and equipment proposed and to which the apparatus furnished will conform. The finalized and approved drawing shall become part of the contract documents. If a revision is required, a "revised" approval drawing of the apparatus shall be prepared and submitted by the manufacturer to the District showing any changes made to the approved drawing.

General Construction

The apparatus shall be designed with due consideration to distribution of load between the front and rear axles. Weight balance and distribution shall be in accordance with the recommendations of the National Fire Protection Association.

Quality and Workmanship

The design of the apparatus shall embody the latest approved automotive engineering practices. The workmanship shall be of the highest quality in its respective field. Special consideration shall be given to the following points:

- Accessibility of the various units, which require periodic maintenance.
- Ease of operation (including both pumping and driving) and symmetrical proportions.

Construction shall be rugged and ample safety factors shall be provided to carry the loads specified and to meet the conditions set forth under "Performance Tests and Requirements". Welding shall not be employed in the assembly of the apparatus in a manner that shall prevent the ready removal of any component part for service or repair. All steel welding shall follow American Welding Society D1.1-96 recommendations for structural steel welding. All aluminum welding shall be done to American Welding Society and ANSI D1.2-96 requirements for structural welding of aluminum. Flux core arc welding to use alloy rods, type 7000, American Welding Society standards A5.20-E70T1. The manufacturer is required to have an American Welding Society certified welding inspector in plant during working hours to monitor weld quality.

Inspection Trip(s)
The bidder shall make available two (2) factory inspection trip(s) for Three (3) customer representative(s). The inspection trip(s) shall be scheduled at times mutually agreed upon between the manufacturer's representative(s) and the customer.

Delivery
Apparatus, to insure proper break in of all components while still under warranty, will be delivered, F.O.B. destination, under its own power, rail or truck freight will not be acceptable. A qualified delivery engineer shall deliver the apparatus and remain for a sufficient length of time (TBD), to instruct personnel in the proper operation, care and maintenance of the equipment delivered at the vendor's expense. Fleet Management will not accept ownership until vehicle has been inspected for compliance with the specifications in this document.

Manufacturer shall supply at time of delivery, complete operation and maintenance manuals covering the completed apparatus as delivered. A permanent plate shall be mounted in the driver's compartment, which specifies the quantity and type of fluids required including engine oil, engine coolant, transmission and drive axle.

Performance Tests and Requirements
A road test shall be conducted with the apparatus fully loaded and a continuous run of ten (10) miles or more under all driving conditions, during which time the apparatus shall show no loss of power or overheating. The transmission drive shaft or shafts, and the rear axles shall run quietly and be free from abnormal vibration or noise throughout the operating range of the apparatus. Vehicle shall adhere to the following parameters:

- The apparatus, when fully equipped and loaded, shall have not less that 25% nor more than 50% of the weight on the front axle, and not less than 50% nor more than 75% on the rear axle.

- The apparatus shall be capable of accelerating to 35 mph from a standing start within 25 seconds on a level concrete highway without exceeding the maximum governed rpm of the engine.

- The service brakes shall be capable of stopping a fully loaded vehicle in 35 feet at 20 mph on a level concrete highway. The air brake system shall conform to the Federal Motor Vehicle Safety Standards (FMVSS) 121.

- The apparatus, fully loaded, shall be capable to obtaining a speed of 70 mph on a level concrete highway with the engine not exceeding its governed rpm (full load).

In the event, the apparatus fails to meet the test requirements of these specifications on the first trial, second trials may be made at the option of the bidder within 30 days of the date of the first trial. **Such trials shall be final and conclusive and failure to comply with these requirements shall be cause for rejection.** Failure to comply with changes to conform to any clause of the specifications, within thirty (30)-days after notice is given to the bidder of such changes, shall also be cause for rejection of the apparatus. Permission to keep or store the apparatus in any building owned or occupied by the District or its use by the District during the above specified period with the permission of the bidder shall not constitute acceptance.

Warranty
Each piece of new fire or rescue apparatus shall be warranted to be free from defects in materials or workmanship under normal use and service. Each manufacturer shall supply, as part of their bid package, a copy of the warranty or warranties that they proposed to provide, and in no case shall it be less than one (1) year on the entire apparatus.

All other warranties, as outlined in these specifications, shall be provided in writing as a part of the bid package.

Failure to provide the warranties as outlined throughout these specifications shall be cause for rejection of the bid package.

Liability
The successful bidder shall defend any and all suits and assume all liability for the use of any patented process including any device or article forming a part of the apparatus or any appliance furnished under this document.

Response to Bid Requirements
Bidders shall indicate in the "yes/no" column if their bid **complies on each item specified**. Exceptions shall be allowed if they are equal to or superior to that specified and by providing such information in the "Comments" field. All exceptions shall be stated no matter how seemingly minor. Any exceptions not taken shall be assumed by the District to be included in the bid, regardless of the cost to the vendor. Bids taking total exception to specifications shall not be acceptable.
Bids shall be submitted on the document provided in the same sequence as specifications for ease of evaluation, comparison and checking of compliance.

Commercial General Liability Insurance
The successful bidder shall, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of commercial general liability insurance:

- ?? Products/Completed Operations Aggregate $2,000,000.00
- ?? Personal and Advertising Injury $1,000,000.00
- ?? Each Occurrence $1,000,000.00

Coverage shall be written on a Commercial General Liability form. The policy shall be written on an occurrence form and shall include Contractual Liability coverage. The policy shall include the County as an additional insured as their interest may appear.

The required limits can be provided by one or more policies, provided all other insurance requirements are met.
A carrier(s) that is rated "Excellent" by A.M. Bests shall provide coverage.

The successful bidder shall, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

- ?? Aggregate: $25,000,000.00
- ?? Each Occurrence: $25,000,000.00

The policy shall be written on an occurrence basis and at a minimum, provide the same coverage's as Bidder's General Liability, Automobile Liability and Employer's Liability policies. The County shall be included as an additional insured on the General Liability and Automobile Liability policies as their interest may appear. The required limits can be provided by one or more policies provided all other insurance requirements are met.

Bidder agrees to furnish owner with a current Certificate of Insurance with the coverage's listed above along with its bid. The certificate shall be made out to the County and be an original, no photocopies shall be accepted. The Certificate of insurance shall provide that County be given 30 days advance notice of cancellation, non-renewal or material change in coverage.

Bid Bond
A bid bond in the form of a cashier check or valid bond issued by a recognized and acceptable bonding agency, for an amount equal to five (5) percent of the total amount bid is required. The bid bond of the successful bidder shall be retained until an acceptable contract is entered into within a reasonable time frame. Failure to enter into such contract shall be cause for forfeiture of bond.

Performance Bond
The successful vendor shall be required to post a performance bond upon award and prior to issuance of purchase order. Bond should be issued by an agency with an "A" rating for the amount equal to one

hundred (100) percent of the total amount bid. Failure to provide the apparatus(s) as specified shall be cause for forfeit of bond.

The following specifications are for the procurement of One (1) Rescue Truck. SIMILAR OR EQUIVALENT IS INTENDED TO ESTABLISH A LEVEL OF QUALITY AND IS NOT TO BE INTERPRETED AS A PREFERENCE FOR A PATICULAR BRAND. QUOTATIONS FOR OTHER BRANDS MEETING THE LISTED MINIMUM REQUIREMENTS WILL BE ACCEPTED. COMPLETE PRODUCT INFORMATION MUST BE SUPPLIED WITH YOUR QUOTATION. SEDGWICK COUNTY RESERVES THE RIGHT TO SELECT THE EQUIPMENT, WHICH BEST MEETS ITS QUALITY REQUIREMENTS AND DURABILITY EXPECTATIONS. An explanation shall be made in the comments field if any additions, deletions, or deviation from the general specifications. Any items appearing in the vehicle Manufacturers regular published specifications furnished by the bidder are assumed to be included in Bidder's Response.

All technical questions, submitted in writing, may be addressed to:

Name: Byron Chrisler
Department: Fire District
Address: 4343 N. Woodlawn, Wichita, KS 67220
Phone: 316-744-0471
Fax: 316-744-0944

SPECIFICATIONS	YES	NO	COMMENTS
CHASSIS Chassis provided shall be a new, tilt-type custom fire apparatus. The chassis shall be manufactured in the apparatus body builder's facility eliminating any split responsibility. The chassis shall be designed and manufactured for heavy-duty service, with adequate strength, capacity for the intended load to be sustained, and the type of service required. The chassis shall be the manufacturers first line tilt cab.			
SEATING CAPACITY: The seating capacity in the cab shall be six (6).			
WHEELBASE: The wheelbase of the vehicle shall be no greater than approximately 217.13".			
GVW RATING: The gross vehicle weight rating shall be a minimum of 35,000 pounds.			
FRAME The chassis frame shall be built with two (2) steel channels bolted to five (5) cross members or more, depending on other options of the apparatus. The side rails shall have a 13.38" tall web over the front and mid sections of the chassis, with a continuous smooth taper to a 10.75*"* over the rear axle. Each rail shall have a section modulus of *25.992* in. sq., and a resisting bending moment (rbm) of 2,859,122 inch pounds over the critical regions of the frame assembly, with a section modulus of 18.96 in. sq. with an rbm of 2,085,803 inch pounds over the rear axle. The frame rails shall be constructed of 110,000-psi yield strength heat treated .38" thick steel, with *3.50"* wide flanges.			
FRAME RAIL WARRANTY The frame rails shall be guaranteed for the **life of the vehicle,** which is estimated to be 50 years, against defects in design, material or workmanship, excluding accident or abuse. A copy of the fire apparatus manufacturer's warranty shall be included with bid. A full-length mainframe inverted "L" liner shall be provided. It also shall be heat-treated steel measuring 12.00" x 3.00" x .25". Each liner shall have a section modulus of 7.795 Cu. in., yield strength of 110,000 psi and rbm of 857,462 inch pounds. Total rbm at wheelbase center shall be 3,750,421 pounds per rail.			
FRONT NON DRIVE AXLE The front axle shall be of the independent suspension design with a ground rating of 18,000 pounds. Upper and lower control arms shall be used on each side of the axle. Upper control arm castings shall be made of 100,000-psi yield strength 8630 steel and the lower control arm casting shall be made of 55,000-psi yield ductile iron. The center cross members and side plates shall be			

constructed out of 80,000-psi yield strength steel. Each control arm shall be mounted to the center section using elastomer bushings. These rubber bushings shall rotate on low friction plain bearings and be lubricated for life. Each bushing shall also have a flange end to absorb longitudinal impact loads, reducing noise and vibrations. There shall be nine (9) grease fittings supplied, one (1) on each control arm pivot and one (1) on the steering gear extension. The upper control arm shall be shorter than the lower arm so that wheel end geometry provides positive camber when deflected below rated load and negative camber above rated load. Camber at load shall be zero degrees for optimum tire life. The kingpin bearing shall be of low friction design and be sealed for life. Toe links that are adjustable for alignment of the wheel to the center of the chassis. The wheel ends must have little to no bump steer when the chassis encounters a hole or obstacle. The steering linkage shall provide proper steering angles for the inside and outside wheel, based on the vehicle wheelbase. The axle shall have a third party certified turning angle of 45 degrees. Front discharge, front suction, or aluminum wheels shall not infringe on this cramp angle. The non-drive axle system shall have a **three (3) year** parts and labor warranty.			
OIL SEALS Oil seals shall be provided on the front axle.			
SHOCK ABSORBERS Heavy-duty telescoping shock absorbers (Gabriel) shall be provided on the front suspension.			
REAR AXLE The rear axle shall be a Meritor™ Model RS-21-l45, with a capacity of 22,000 pounds. The Meritor™ **three (3) year** parts and labor warranty shall be provided with this axle, plus an additional two (2) **years** of parts only coverage. Meritor™ shall also provide a **one (1)** year parts and labor warranty for wheel seals. If other seals are specified, the warranty shall be the same as stated above.			
OIL SEALS Oil seals shall be provided on the rear axle			
TOP SPEED OF VEHICLE A rear axle ratio shall be furnished to allow the vehicle to reach an approximate top speed of 70 to 73 MPH.			
SUSPENSION Front independent suspension shall be provided with a minimum ground rating of 18,000 pounds. The independent suspension system shall be			

designed to provide maximum ride comfort. The design shall allow the vehicle to travel at highway speeds over improved road surfaces, and at moderate speeds over rough terrain with minimal transfer of road shock and vibration to the vehicle's crew compartment. Each wheel shall have torsion bar type spring. In addition, each front wheel end shall also have energy absorbing jounce bumpers to prevent bottoming of the suspension. The suspension design shall be such that there is at least 10.00" of total wheel travel and a minimum of 3.75" before suspension bottoms. The torsion bar anchor lock system allows for simple lean adjustments, without the use of shims. One can adjust for a lean within 15 minutes per side. Anchor adjustment design is such that it allows for ride height adjustment on each side.			
SUSPENSION, REAR The rear springs shall be semi-elliptical, 3.00" x 52.00", 10 leaf with a ground rating of 24,000 pounds. Spring hangers shall be castings with provisions for lubrication. The grease fittings shall be 90-degree type and shall be accessible without removing the wheels or cutting any sheet metal. Two top leaves shall wrap the forward spring hanger pin and the top leaf is to wrap the rear spring hanger pin on both the front and rear suspensions. Kaiser spring pins shall be provided, with double "figure-eight" grease grooves and a layer of electro less nickel plating, 1.0 mil thick around the entire pin. The bushing that holds the spring pin in place shall also have a grease groove.			
ANTI-LOCK BRAKE SYSTEM The vehicle shall be equipped with a Wabco 4S4M, anti-lock braking system. The ABS shall provide a four (4) channel anti-lock braking control on both the front and rear wheels. It shall be a digitally controlled system that utilizes microprocessor technology to control the anti-lock braking system. Each wheel shall be monitored by the system. When any particular wheel begins to lockup, a signal shall be sent to the control unit. This control unit then shall reduce the braking of that wheel for a fraction of a second and then reapply the brake. This anti-lock brake system shall eliminate the lockup of any wheel thus helping to prevent the apparatus from skidding out of control. The Wabco ABS system shall come with a three (3) year or 300,000-mile parts and labor warranty provided by Meritor Wabco Vehicle Control Systems**.**			

BRAKES The service brake system shall be full air type. The front brakes shall be Knorr/Bendix disc type with a 17.00" Ventilated rotor for improved stopping distance. The brake system shall be certified, third party inspect for improved stopping distance. The rear brakes shall be Meritor™ 16.50" x 7.00" cam operated with automatic slack adjusters.			
ENGINE BRAKE A Jacobs engine brake is to be installed with controls located on the instrument panel within easy reach of the driver. The driver shall be able to turn the engine brake system on/off and have a high and low setting. The engine brake shall be installed in such a manner that when the engine brake is slowing the vehicle the brake lights are activated. The ABS system shall automatically disengage the auxiliary braking device, when required.			
AIR COMPRESSOR BRAKE SYSTEM The air compressor shall be a Cummins/Wabco with 18.7 cubic feet per minute output.			
BRAKE SYSTEM The brake system shall include: 1. Bendix-Westinghouse dual brake treadle valve with vinyl covered foot surface. 2. A heated automatic moisture ejector on air dryer. 3. Total air system capacity of 4,362 cubic inch. 4. Two (2) air pressure gauges with red warning light and audible alarm, that activates when air pressure falls below 60 psi. 5. MGM spring set parking brake system. 6. Parking brake operated by a Bendix-Westinghouse PP-1 control valve. 7. A parking "brake on" indicator light on instrument panel. 8. Bendix-Westinghouse SR-1 valve, in conjunction with a double check valve system, shall be provided with an automatic spring brake application at 40 psi. 9. Wabco System Saver 1200 air dryer.			
BRAKE LINES Color code nylon brake lines shall be provided. The lines shall be wrapped in a heat protective loom where necessary in the chassis.			
AIR INLET One (1) air inlet with male coupling shall be provided. It shall allow station air to be supplied to the apparatus brake system through a shoreline hose. The inlet shall be located in the driver side cab step area. A check valve shall be provided to prevent reverse flow of air. The inlet shall discharge into the			

"wet" tank of the brake system. A mating female coupling shall also be provided with the loose equipment.			
ENGINE The chassis shall be powered by a Cummins electronic engine as described below: 1. Model ISL (electronic) 2. Number of Cylinders: Six (6) 3. Bore and Stroke: 4.49" x 5.69" 4. Displacement: 540 cubic inches 5. Rated Brake Horsepower: 400 at 2000 rpm 6. Torque: 1200 at 1300 rpm 7. Compression Ratio: 16.6:1 8. Governed rpm: 2200 Standard equipment on the engine shall include the following: 1. Air Cleaner: Farr or equal 2. Fuel Filter: Dual, with check valve, integrated water separator, and water in fuel sensor. 3. Coolant Filter: Spin-on with shut off valve (pre-charged with coolant inhibitor). 4. Governor: Limiting speed type 5. Injectors: Cam operated, unit type, clean tip. 6. Lube Oil Cooler 7. Lube Oil Filter: Full flow 8. Starting Motor: 12 Volt 9. Turbocharger 10. Charge Air Cooled The engine shall have a **five (5) year or 100,000 mile** warranty provided by the engine manufacturer. The engine manufacturer shall add a $100.00 deductible during the extended basic coverage period in years 3, 4, and 5. There shall be no deductible in the first 2 years of warranty.			
ENGINE INSTALLATION CERTIFICATION The fire apparatus manufacturer shall provide, at the time of delivery, a letter from the engine manufacturer stating they approve all of the engine installation in the bidder's chassis. The approval of the engine installation shall be at full horsepower rating in a continuous duty application under all operating conditions, including road and pump. No type of automatic horsepower reduction feature shall be allowed. There shall be no exception to any portion of the engine installation certification. Nonconformance shall lead to immediate rejection of bid.			

ENGINE AIR INTAKE The air intake with Ember Separator shall be mounted high on the passenger side of cab, to the front of crew cab door to prevent road dirt and re-circulating hot air from entering the engine. The Ember Separator shall be easily accessible through a hinged stainless steel grille, with one (1) flush quarter turn latch.			
EXHAUST SYSTEM The exhaust system shall be 4.00" diameter. The exhaust shall exit on the right side ahead of the rear wheels. A heat deflector shield shall be provided where the tail pipe is routed under any side compartmentalization.			
DIAGNOSTIC CARTRIDGE A diagnostic cartridge, for DDEC III/IV shall be provided for use with the Pro-Link 9000 reader. The following items shall be included: 1. Program Card, DDEC III/IV 2. Adapter, Multi-Protocol Cartridge.			
A heavy-duty diagnostic cartridge shall be provided for use with the Pro-link 9000 reader. This cartridge shall allow general diagnostic readings on most electronic engines, transmissions and anti-lock brake systems. The following items shall be included: 1. Heavy-duty Cartridge			
A diagnostic cartridge, for Wabco ABS/ASR shall be provided, for use with the Pro-link 9000 reader. 1. Wabco ABS/ASR cartridges.			
DIAGNOSTIC READER A diagnostic reader, Pro-link 9000 shall be furnished. The following items shall be included: 1. Pro-link 9000 reader 2. Interconnect cables 3. Storage case 4. Two (2) Adapters (12-pin square and 6-pin round) will be provided.			
PRINTER A printer, Pro-link 9000 shall be furnished. The following items shall be included: 1. Pro-link 9000 printer 2. Roll of paper.			
HIGH IDLE A high idle switch shall be provided, inside the cab, on the instrument panel, that shall automatically maintain a preset engine rpm. A switch shall be installed, at the cab instrument panel, for activation/deactivation. The high idle shall be operational only when the parking brake is on and the truck transmission is in neutral. A green indicator light shall be provided adjacent to the switch. The light shall illuminate when the above conditions are met. The light shall be labeled "OK To Engage High Idle".			

COOLANT LINES Gates, or Goodyear, rubber hose shall be used for all engine coolant lines installed by the chassis manufacturer. Hose clamps shall be stainless steel “constant torque type” to prevent coolant leakage. They shall react to temperature changes in the cooling system and expand or contract accordingly while maintaining a constant clamping pressure on the hose.			
RADIATOR Radiator and the complete cooling system shall meet or exceed NFPA cooling system standards. Cooling system capacity shall exceed all cooling requirements specified by the engine manufacturer under all truck operating conditions. It shall have a built-in low coolant sight glass and an electronically controlled low coolant display mounted on the instrument panel. An integral surge and deaeration tank shall be provided to optimize the cooling system for all operating conditions. The cooling system shall be designed to maintain pressure at nine (9) psi for maximum dissipation. A drain valve shall be located at the lowest point of the cooling system and at other points to permit complete flushing of the coolant from the system. A heavy-duty fan, shrouded by re-circulation shields that permit only fresh cool air through the radiator, shall draw in cooling air. Radiator shall be of the serpentine design and bonded together by the patented “beta-weld” process for increased strength, longer road life and solder-bloom corrosion protection. Radiator shall be mounted in a manner to prevent the development of leaks caused by twisting or straining when the apparatus operates over uneven ground. Radiator core Radiator core shall be compatible with commercial antifreeze solutions. Cooling system shall exhibit rapid warm-up without use of radiator shutters.			
FUEL TANK A 50-gallon fuel tank shall be provided and mounted at rear of chassis. The tank shall be constructed of 12-gauge, hot rolled steel. It shall be equipped with swash partitions and a vent. A .75” drain plug shall be provided in a low point of the tank for drainage. A fill inlet shall be located on the driver’s side of the body and be covered with a hinged, spring loaded, stainless steel door that is marked “Diesel Fuel Only”. A .50” diameter vent shall be provided running from top of tank to just below fuel fill inlet. The tank shall meet all FHWA 393.67 requirements			

including a fill capacity of 95% of tank volume. All fuel lines shall be provided as recommended by the engine manufacturer.			
TRANSMISSION An Allison, model EVS 3000P, electronic torque converting automatic transmission shall be provided. Two (2) PTO openings shall be located on left side and top of converter housing (positions 9 o'clock and 3 o'clock). A transmission temperature gauge with red light and audible alarm shall be installed on the cab dash. **The** transmission shall have **a five** (5)-year/**Unlimited mileage** warranty covering 100% parts and labor. The warranty to be provided by Allison Transmission and not apparatus builder.			
TRANSMISSION, SHIFTER A five (5)-speed push button shift module shall be mounted to right of driver on console. Shift position indicator shall be indirectly lit for after dark operation. The transmission ratio shall be: 1st -3.49 to 1.00, 2nd **-** 1.86 to 1.00, 3rd **-** 1.41 to 1.00, 4th **-**1.00 to 1.00, 5th -0.75 to 1.00, R -5.03 to 1.00.			
TRANSMISSION COOLER Transmission oil cooler shall be provided in the lower tank of the radiator.			
DRIVELINE Drivelines shall be a heavy-duty metal tube and be equipped with Spicer 1710 universal joints. The shafts shall be dynamically balanced before installation. A splined slip joint shall be provided in each drive shaft, slip joint shall be coated with Glidecoat or equivalent.			
STEERING Dual Sheppard M110 steering gears, with integral heavy-duty power steering, shall be provided. The power steering shall incorporate a Vickers V2ONF hydraulic pump with integral pressure and flow control. The steering wheel shall be 18.00" in diameter, and capable of tilting and telescoping.			
TIRES Front tires shall be Michelin radials 315/80R22.50, 20 ply "all position" XZY-2 tread. The tires shall be mounted on Alcoa 22.50*"* x 9.00" polished aluminum disc wheels with a ten (10) stud, 11.25*"* bolt circle. Rear tires shall be four (4) Michelin radials 12R22.50, 16 ply XDN, ice and snow tread. The tires shall be mounted on Alcoa 22.50*"* x *8.25"* polished aluminum disc wheels with a ten (10) stud-11.25" bolt circle.			
LUG NUT COVERS Chrome plated lug nut covers shall be installed on all lug nuts.			

AUTOMATIC TIRE CHAINS One (1) pair of "On Spot" automatic tire chains shall be provided at the rear. System shall be electric over air operated with switch on cab instrument panel. System to be operable at speeds up to 35 mph.			
MUD FLAPS Mud flaps shall be installed behind the rear wheels of the apparatus.			
CAB The cab shall be designed specifically for the fire service and manufactured by the chassis builder. Construction of the cab shall consist of 5052-H32 .125" aluminum welded to extruded aluminum framing. The apparatus manufacturer shall build the cab in a facility located on the manufacturer's premises. (No exceptions) The cab shall be 96.00" wide, with an interior width of 87.50". The forward cab section overall height (cab roof to ground) shall be approximately 99.00". The crew cab section shall have a 22.00" raised roof with an overall cab height of 121". The floor to ceiling height inside the crew cab shall be 74.50". The crew cab floor shall measure 48.75" from rear wall to the backside of engine tunnel. The crew cab shall be of the totally enclosed design, with access doors constructed in the same manner as the driver and passenger doors. The cab shall be a full tilt cab style. The engine shall be easily accessible and capable of being removed with the cab tilted. Provisions for checking the transmission, oil, and power steering fluid levels shall be placed so that they are accessible without raising the cab. The cab shall have three (3)-point rubber mounting and shall be tilted by a hydraulic pump connected to two (2) cab lift cylinders. The cab shall then be locked down by a two (2)-point automatic locking mechanism that actuates after the cab has been lowered. The cab access steps shall be 22.00" wide; crew cab shall be 21.50" wide x 8.00" minimum depth, located inside the door, protecting the step from weather elements. The inside cab steps shall not exceed 16.50" high. The crew cab entrance shall be a two (2)-step design for easy access. A 20.00", slip resistant, handrail shall be provided adjacent to all door openings to assist entrance into the cab. A rubber-covered handrail shall be provided inside each front cab door, adjacent to the doorposts. The cab doors shall be 35.00" wide x 69.00" high.			

The crew cab doors shall be 34.25” wide x 83.00” high for easy entry, and located on the side of the cab. The cab and crew cab doors shall be constructed of extruded aluminum with a nominal material thickness of.125”. The exterior skins shall be constructed from .090” aluminum. All cab and crew cab entry doors shall contain a conventional roll down window. Flush mounted, chrome plated paddle type door handle shall be provided on the exterior of the cab doors. All interior cab door handles shall also have flush paddle handles. The door hinge shall be a stainless steel piano type with a .25” pin. There shall be double automotive type rubber seals around the perimeter of the door framing and door edges to ensure a weather tight fit. Polished stainless steel scuff plates shall be installed on the inside of all cab doors, extending from the bottom of the door to 9.00” above the floor line. Cab door panels shall be removable without disconnecting door and window mechanisms. Engine hood sidewalls shall be constructed of .50” aluminum; top shall be constructed of .19” aluminum and shall be tapered at top to allow for more driver and passenger elbow room. The engine hood shall be insulated for protection from heat and sound. The noise insulation shall keep the DBA level within the limits stated in the current NFPA series 1900 pamphlet. Full circular inner fender liners, in the wheel wells, shall be provided. The outside rear wall of the crew cab shall be covered with a bright aluminum tread plate panel. A curved, safety glass windshield shall be provided, with over 2,754 square inches of clear viewing area. The cab windshield shall have bright trim inserts in the rubber molding holding the glass in place. All cab glass shall be tinted. Economical windshield replacement glass shall be readily available from local auto glass suppliers. Two (2) smoked Lexan sun visors, 8.75” x 31.00” long, shall be provided. The sun visors shall be located above the windshield with one (1) mounted on each side of the cab. Two (2) Electric windshield wipers with washer shall be provided that meet FMVSS and SAE requirements. The washer reservoir shall be able to be filled without raising the cab. A certification letter from Dana, stating they approve of the wiper system shall be furnished upon request. The wiper system shall have run through 3,000,000			

cycles, and shall have achieved certification parameters.			
CAB INTEGRITY CERTIFICATION The fire apparatus manufacturer shall provide a cab crash test certification with this proposal. The certification states that the cab must meet or exceed the requirements below: 1. European Occupant Protection, Standard ECE Regulation No.29. 2. SAE J2422 Cab Roof Strength Evaluation, Quasi-Static Loading Heavy Trucks. 3. SAE J2420 COE Frontal Strength Evaluation, Dynamic Loading Heavy Trucks. **Roof Crush** The cab shall be subjected to a roof crush force of 26,400 lbs. This value shall be 120% of the ECE 29 criteria, and equivalent to the front axle rating up to a maximum of 10 metric tons. **Side Impact** The cab shall be subjected to dynamic preload with a 14,060 lb moving barrier is slammed into the side of the cab at 5.1 mph, striking with an impact of 12,200 ft-lbs of energy. This test shall closely represent the forces a cab shall see in a rollover incident. **Frontal Impact** The cab shall withstand a frontal force produce from 65,000 ft-lbs of energy using a swing-bob type platen. There shall be no exception to any portion of the cab integrity certification. Nonconformance shall lead to immediate rejection of bid.			
CAB FLOOR The cab and crew cab floor areas shall be covered with Polydamp acoustical floor mat consisting of a black pyramid rubber facing and closed cell foam de-coupler. The top surface of the material has a series of raised pyramid shapes evenly spaced, which offer a superior grip surface. Additionally, the material has a .25" thick closed cell foam (no water absorption) which offers a sound dampening material for reducing sound levels			
CREW CAB WINDOWS On each side of the crew cab, a window with tinted glass shall be provided.			
ELECTRIC WINDOWS (Cab doors) Both front cab doors shall be equipped with electric operated windows. The control for each door shall be an automotive style located on the inside door panel within easy reach of the driver and officer. The driver shall also have a control to operate the passenger's side window; a single control shall be located on the driver's lower instrument panel.			
ELECTRIC WINDOWS (Crew cab doors)			

Both crew cab doors shall be equipped with electric operated windows. The control shall be an automotive style located on the inside door panel within easy reach of the crew cab passengers.			
CREW CAB WINDOW CURTAINS There shall be four (4) curtains provided and installed in the crew cab: One (1) curtain shall cover the driver's side windows Two (2) curtains shall cover the passenger's side window and door window One (1) curtain shall divide the cab and crew cab areas. Tiebacks shall be included with each curtain.			
WINDOW TINT Crew cab windows shall be tinted with 44% light transmission tint. The following windows are included: - Crew cab side windows - Crew cab door, roll-up windows - Top fixed window in crew cab doors - Rear opera windows (If applicable) - All windows in raised roof (If applicable).			
DESK TOP/STORAGE DRAWER A desk assembly with pull out drawer shall be mounted on the rear of engine tunnel, between the rear facing seats. The desktop surface shall be finished with white Nevarmar, easily removable to allow access to electrical distribution area in the engine tunnel. The desktop shall be slanted slightly. Below the desktop shall be a slide-out working surface constructed of white Nevarmar. This work surface shall be at the same angle as the top surface. The work surface shall be secured when stowed and useable from the two (2)-center forward facing seats. There shall be a pullout drawer below the work surface including two (2) flush mounted pawl latches complete with keyed locks. The drawer shall be 2.00" high x 20.00" deep. The desk frame and drawer assemble shall be constructed of smooth aluminum painted to match the interior of the crew cab.			
FENDER CROWNS Stainless steel fender crowns shall be installed at cab wheel openings. The fender crowns shall have a radius outside corner that allows the fender crown to extend beyond the sidewall of the front tires and also allow the crew cab doors to open fully.			
CONDUIT FOR RADIO INSTALLATION A section of 1.50" flexible conduit for radio installation shall be provided. The conduit shall be installed from the officer side cab instrument panel to the radio compartment under the officer seat.			
CAB LIFT A hydraulic cab lift system shall be provided consisting of an electric powered hydraulic pump, dual lift cylinders, and necessary hoses and valves.			

Lift controls shall be located on the front area of the body in a convenient location within an enclosed compartment. Cab shall be locked down by a two (2)-point automatic spring loaded hook mechanism that actuates after the cab has been lowered. The hydraulic cylinders shall be equipped with a velocity fuse that protects the cab from accidentally descending when the control is located in the tilt position. A redundant mechanical stay arm shall automatically be engaged once the cab has been fully raised. Before lowering the cab, this device must be disengaged using the stay arm control located near the cab raise/lower switch.			
INTERLOCK. CAB LIFT TO PARKING BRAKE The cab lift system shall be interlocked to the parking brake. The cab tilt mechanism shall be active only when the parking brake is set and the ignition switch is in the on position, if the parking brake is released the cab tilt mechanism shall be disabled.			
MIRRORS Velvac, model *2025,* low mount chrome mirrors shall be mounted, one (1) on each of the cab door's side. The mirror shall include a replaceable 62.00 sq. Inch flat glass and a 30 sq. Inch convex glass. Overall mirror dimensions shall be *8.50"* wide x 13.75" high. Mirror head shall have a highly polished chrome finish. Both flat mirror heads shall be adjustable by an electric remote control switch inside the cab within easy reach of the driver. Convex mirror heads shall be adjusted manually. The mirror heads shall also be heated with the control within easy reach of the driver. Each mirror shall be provided with an LED directional light. The Velvac two **(2) year** warranty on material and workmanship and **five** *(5)* **year** warranty on chrome finish shall be provided.			
BUMPER A one (1) piece, ten (10) gauge, 304-2B type polished stainless steel bumper, a minimum 10.00" high shall be attached to a bolted modular extension frame constructed of 50,000 psi tensile steel "C" channel mounted directly behind it to provide adequate support strength. The bumper shall be extended 19.00" from front face of cab. Documentation shall be provided, upon request to show that the options selected have been engineered for fit-up and approval for this modular bumper extension. A chart shall be provided to indicate the option locations and shall include, but not be limited to the following options: air horns, mechanical sirens, speakers, hose trays (with hose capacities), winches, lights, discharge and suction connections.			
GRAVEL PAN A gravel pan, constructed of bright aluminum tread plate, shall be furnished between the bumper and cab face. The gravel pan shall be properly supported from the underside to prevent flexing and vibrations of the aluminum tread plate.			

TOOL BOX The front bumper extension shall have an aluminum tool/chain box installed on the right side. The box shall be raised 1.50" above the gravel pan.			
TOOL BOX COVER A bright aluminum tread plate cover shall be provided. The cover shall be attached with a stainless steel hinge A lift and turn latch shall secure the cover in the closed position and a mechanical stay arm shall hold the cover in the open position			
HINGED CENTER SECTION The center section of the bumper shall be hinged at the bottom. Two (2) pawl latches shall hold the section in the closed position.			
TOW HOOKS Two (2) chromed steel tow hooks shall be installed under the bumper and attached to the front frame members. The tow hooks shall be designed and positioned to allow up to a 6,000-pound straight horizontal pull in line with the centerline of the vehicle. The tow hooks shall not be used for lifting of the apparatus.			
CAB INTERIOR The cab instrument panel shall be padded and covered with 46 ounce, leather grain vinyl resistant to oil, grease and mildew. Door panels shall also be covered with a similar appearing material. The headliner shall be installed in both forward and rear cab sections. Headliner material shall be vinyl. A sound barrier shall be part of its composition. Material shall be installed on aluminum sheet and securely fastened to interior cab ceiling. Forward portion of cab headliner shall provide easy access for servicing electrical wiring or for other maintenance needs without removing the entire unit.			
CAB INTERIOR UPHOLSTERY The cab interior upholstery shall be red.			
INTERIOR PAINT (Cab) The cab interior metal surfaces shall be painted red, vinyl texture paint.			
CAB SEATING A Seats Inc. #911 Magnum 100 "knee-action" air-ride style seat with high back shall be provided in the cab for the driver. The seat shall have 3.00" of height adjustment, in addition to the "knee-action" suspension. The driver's seat shall be furnished with three (3) - point shoulder type seat belts. The seat belt shall be furnished with automatic retractor. Extension shall be provided with the seat belt so the male end can be easily grasped and the female end easily located while sitting in a normal position. A Seats Inc. #911 fixed companion high back style seat shall be provided in the cab for the officer. The officer's seat shall be furnished with three- (3)			

point shoulder type seat belt. The seat belt shall be furnished with automatic retractor. Extension shall be provided with the seat belt so the male end can be easily grasped and the female end easily located while sitting in a normal position.			
RADIO COMPARTMENT A radio compartment shall be provided under the officer's seat. The inside compartment dimensions shall be 14.13" deep x 15.75" across x 5.25" high. A drop-down door with a chrome plated lift and turn latch shall be provided for access. The compartment shall be constructed of smooth aluminum and painted to match the cab interior.			
SEATING (rear facing crew cab) Two (2) rear-facing Seats Incorporated 911 non SCBA Seats shall be provided in the outboard positions in crew cab. Seats shall be furnished with three point shoulder type seat belts. The seat belts shall be furnished with automatic retractors. Extensions shall be provided with the seat belts so the male end can be easily grasped and the female end easily located while sitting in a normal position.			
SEATING (forward facing crew cab) Two (2) forward facing, Seats Incorporated 911 non-SCBA, seats shall be provided in the center positions, against the cab rear wall. Seats shall be furnished with three (3)-point shoulder type seat belts. The seat belts shall be furnished with automatic retractors. Extensions shall be provided with the seat belts so the male end can be easily grasped and the female end easily located while sitting in a normal position.			
SEAT UPHOLSTERY All Seats Inc. 911 seat upholstery shall be red and black speckled Imperial 1200 material. The cab shall have six (6) Seats Inc 911 seating positions.			
CAB WARRANTY The bidder shall furnish a **ten (10) year** cab warranty. The warranty shall cover defects in design or workmanship in the cab tubular support and mounting supports and other cab structural components identified in the specifications. A copy of the warranty shall be submitted with the bid. **(No Exceptions).**			
ENGINE COMPARTMENT LIGHT An engine compartment light shall be installed under the engine hood, of which the switch is an integral part. Light shall have a .125" diameter deep hole in its lens to prevent moisture retention			
CAB INTERIOR LIGHTING Auxiliary lights shall be provided in the cab and consisting of: One (1) Weldon, Model 8081-6978-68, Red/Clear dome light located in the center, controlled by the			

following: Clear forward light controlled by the door switch and the lens switch. Red rearward light controlled by the lens switch. Two (2) Adjustable Map Lights with switches mounted on the cab ceiling A Courtesy Light at each Door Opening controlled by automatic door switches.			
CREW CAB INTERIOR LIGHTING Auxiliary lights shall be provided in the crew cab and consist of: Two (2) Weldon, Model 8081-6978-68, Red/Clear dome lights located one (1) each side, controlled by the following: Clear forward light controlled by the door switch and the lens switch. Red rearward light controlled by the lens switch. A courtesy light at each door opening controlled by automatic door switches.			
CAB HEATER There shall be a 40,000 BTU heater in the cab located below the right side cab dash. The heater/defroster ventilation shall be built into the design of the cab dash instrument panel. The heater ducts shall be vented in a manner to provide heat directed towards the officer and the driver. The defroster ducts shall be designed to provide maximum defrosting capabilities for the front cab windows. Heater defroster controls shall be located on the cab dash within easy reach of the driver.			
CREW CAB HEATER An auxiliary heater with 50,000 BTU shall be provided inside the crew cab. The heater shall have a three (3)-speed blower, and temperature controls located adjacent to the heater. Heater shall be mounted in seat riser.			
AIR CONDITIONING A high performance air conditioning system shall be furnished inside the cab and crew cab. The air conditioning system shall perform as follows: In 100 degree Fahrenheit ambient temperature with 50 percent relative humidity and at maximum compressor speed, the cab and crew cab shall cool down to 75 degrees Fahrenheit within 30 minutes. Actual test results from the manufacturer of the air conditioning system, verifying this performance requirement, shall be submitted with bid. A 19.0 cubic inch compressor shall be installed on the engine. A roof-mounted condenser, with adequate BTU to meet the performance specification, shall be installed on the cab roof. Two (2) evaporator units shall be installed in the cab, in the following locations:			

One (1) in the cab dash, just to the front of the officer One (1) in the crew cab, mounted to the front of the raised roof, facing rearward The crew cab evaporator unit shall be mounted to the underside of a storage compartment. The storage compartment shall have a single lift up door. The evaporator units shall have an adequate BTU rating to meet the performance specifications. The air conditioning system shall have adjustable air outlets incorporated into the cab dash at both the driver and officer positions. The evaporator unit in the crew cab shall have adjustable air outlets located directly on the evaporator unit. The air conditioner refrigerant shall be R-134A, installed by a certified technician.			
INTERIOR CAB INSULATION The cab and crew cab walls shall be insulated with 2.00" insulation where possible and the roof with 1.00" insulation to aid in cooling. The insulation shall be covered with a vinyl liner or a metal panel painted to match the interior.			
CAB INSTRUMENTATION Instrument panel controls and switches shall be identified to function by imprinted word(s) adjacent to each item. Actuation of the headlight switch shall illuminate ("back-lite") wording for after dark operation. Turn signal and high beam headlight indicator lights shall also be provided. To avoid confusion, warning indicators shall be (where possible) the "dead front" type, meaning the warning light and word identification of the same, does not show up unless it is necessary. The built-in emergency light switch panel shall have a master switch plus individual switches for selective control. The switch panels shall be located in the "overhead" position above the windshield on the driver's N/A side to allow for easy access. All non-emergency switch panels shall be located in a switch housing to the right of the driver, within easy reach. Switches shall be rocker type containing an indicator light, which is an integral part of the switch. Instrument panel gauges, vehicle lights and other electrical accessories shall have proper size wiring to accommodate the expected current load. Wiring shall meet SAE J-1128 specifications for high temperature (250 degrees Fahrenheit minimum) conditions and shall be color, number and function coded. Cab instruments and controls shall be conveniently located within the forward cab section. Gauges and emergency vehicle switches shall be installed on removable panels for ease of service. The following gauges and controls shall be furnished: Speedometer/Odometer: Electric with trip meter			

Tachometer: Electric Hour meter for Engine Engine Oil Pressure Gauge: Red warning light and an audible alarm Engine Coolant Temperature Gauge: Red warning light and an audible alarm Automatic Transmission Oil Temperature Gauge: Red warning light and an audible alarm Two (2) Air Pressure Gauges: Red warning lights and an audible alarm Voltmeter: Warning light and audible alarm indicating high or low voltage Low Coolant Indicator Light (amber): Audible alarm Fuel Gauge Low Fuel Indicator Light: Audible alarm Ignition Switch: Green indicator light Starter Control Heater Controls Headlight Switch Self Canceling Turn Signal Switch (arm): Visual indicators Headlight Dimmer and Hazard Switch: incorporated into turn signal arm Warning Light Switch Control Panel Parking Brake Control: Red indicator light Horn Button: Center of the steering wheel (for dual electric horns) Control to Check Engine Warning System Indicators. High Air Restriction Warning Indicator Light (electronic). One two (2)-speed Windshield Wiper Control with Intermittent Feature. The control shall also have a "return to park" provision, which allows the wipers to return to the stored position when the wipers are not in use Windshield Washer Controls.			
STORAGE CONSOLE There shall be a console located in the cab with room for radios and map storage. There shall be three (3) sections for map storage. The console shall be constructed out of smooth aluminum and painted black.			
ELECTRICAL POWER CONTROL SYSTEM Electrical compartments shall be provided in the cab to house the vehicles electrical power and signal circuit protection and control components. The power and signal protection and control compartments shall contain circuit protection devices, power control devices, and vehicle interface modules. Power and signal protection and control components shall be protected against corrosion, excessive heat, excessive vibration, physical damage and water spray. Serviceable components shall be readily accessible. Circuit protection devices, which conform to SAE standard, shall be utilized to protect each circuit. All			

circuit protection devices shall be sized to prevent wire and component damage when subjected to extreme current overload. General protection circuit breakers shall be Type-I automatic reset (continuously resetting) or Type-II (manual resetting) and conform to SAE J553 or J258. When required, automotive type fuses conforming to SAE J554, J1284, J1888 or J2077 shall be utilized to protect electronic equipment. Power control relays and solenoids shall have a direct current (dc) rating of 125 percent of the maximum current for which the circuit is protected. A programmable logic controller shall be utilized to achieve advanced control of the electrical system. The microprocessor-based system shall be extremely reliable, shock proof vibration resistant and moisture proof. The system shall comply with all appropriate SAE J1939 recommended practices. The compactness of the system shall reduce overall components and wiring size thus the vehicles, weight. In addition to a visual message center, the logic controller shall activate status indicators and audible alarms designed to provide early warning of problems before they become critical. The programmable logic controller shall include the following attributes: On-board self diagnostic messages and status indicators Visual LED confirmation of communication at each Vehicle Interface Module and ECU Automatic self-test on startup and during vehicle operation Eliminate control logic relays wherever possible Provide logic control for NFPA 1901 mandated safety interlocks and indicators Utilize system integration to eliminate redundant wiring and components Improve control system reliability by reducing relay and connector contacts Advanced electrical system load management and sequencing system Customized control software programmed to reflect the vehicles unique configuration Reprogrammable to accommodate changes to the vehicles operating parameters Complete operating and troubleshooting manuals			
CIRCUIT PROTECTION AND CONTROL DIAGRAM A diagram of the circuit protection and control system			

shall be provided inside the circuit protection compartment to allow immediate component identification.			
ON-BOARD ELECTRICAL SYSTEM DIAGNOSTICS Advanced on-board diagnostic messages shall be provided to support rapid troubleshooting of the electrical power and signal system. The diagnostic messages shall be displayed on a LCD message center located at the driver's position. The on-board message center shall include the following diagnostic information: Diagnostic codes for engine, transmission, and anti-lock braking system are available via blink code switches and indicator lights. Simplified warning indicators (from operators perspective). Multiple diagnostic messages on display with text description.			
Standard Warning Messages: !!! WARNING!!! DRIVERS DOOR OPEN !!! WARNING!!! OFFICERS DOOR OPEN !!! WARNING!!! REAR DOOR OPEN !!! WARNING!!! CHECK TRANSMISSION !!! WARNING!!! STOP ENGINE !!! WARNING!!! LOW COOLANT LEVEL !!! WARNING!!! FRONT AIR PSI LOW !!! WARNING!!! REAR AIR PSI LOW !!! WARNING!!! HIGH TRANS OIL TEMP !!! WARNING!!! HIGH ENG WATER TEMP !!! WARNING!!! MAIN BATT LOW/HIGH !!! WARNING!!! ENGINE PROTECTION !!! WARNING!!! LOW ENG OIL PSI !!! WARNING!!! LOW ENG OIL PSI			
Standard Caution Messages !! CAUTION!! AIR RESTRICTION !! CAUTION!! CHECK ENGINE !! CAUTION!! ATC !! CAUTION!! LOW FUEL LEVEL !! CAUTION!! WAIT TO START !! CAUTION!! ABS !! CAUTION!! LOAD MANAGER ACTIVE			
Optional Warning Messages, if so equipped with option !!! WARNING!!! LADDER RACK DOWN !!! WARNING!!! AUX BATT LOW/HIGH !!! WARNING!!! TOWER RAISED			
Optional Caution Messages, if so equipped with option !! CAUTION!! WATER IN FUEL			
SERVICE AND MAINTENANCE DIAGNOSTICS Advanced vehicle service and maintenance shall be assisted with a Windows-based software program. The software shall provide advanced troubleshooting tools to service technicians equipped with an IBM compatible computer. The service and maintenance software shall include the following features: Easy to understand and use Ability to view system input/output (I/O) information Appropriate warnings regarding the location of			

welding-sensitive components A complete troubleshooting guide shall be provided with the vehicle.			
VOLTAGE MONITOR SYSTEM A voltage monitor system shall be provided to indicate the status of the battery system connected to the vehicles electrical load. The monitor system shall provide visual and audio warning when the system voltage is below optimum levels. The alarm shall activate if the system voltage falls below 11.8 VDC for more than two (2) minutes.			
POWER AND GROUND STUDS Four (4) studs shall be provided in the electrical component compartment for two-way radio equipment. The studs shall consist of a 12-volt battery direct; switched battery, ignition switched power stud and a grounding stud.			
EMI/RFI PROTECTION The electrical system proposed shall reduce undesired electromagnetic and radio frequency emissions. State of the art electrical system design and components shall be used to insure radiated and conducted EMI (electromagnetic interference) and RFI (radio frequency interference) emissions are suppressed at their source. The apparatus proposed shall have the ability to operate in the electromagnetic environment typically found in fire ground operations. The contractor shall be able to demonstrate the EMI and RFI testing which has been done on similar apparatus and certifies that the vehicle proposed meets SAE J551 requirements. Applying appropriate circuit designs and shielding shall control EMI/RFI susceptibility. The electrical system shall be designed for full compatibility with low-level control signals and high-powered two (2)-way radio communication systems. Harness and cable routing shall be given careful attention to minimize the potential for conducting and radiated EMI-RFI susceptibility.			
WINCH A Warn, model XD9000i multi-mount, 9,000-pound portable 12V electric winch shall be provided. The winch shall mount to the vehicle receiver hitch and be held in place with a locking hardened pin. A heavy gauge wire and electrical plug shall be provided for quick connection to the vehicle electrical system. The winch shall be provided with 125 feet of .313" galvanized cable with a replaceable clevis hook. A 12' remote control shall be provided.			
RADIO ANTENNA MOUNT An antenna-mounting base, Model MATM with 17 feet of coax cable and weatherproof cap shall be provided for a two-way radio. The mount shall be located on the cab roof just to the rear of the officer seat. The cable shall be routed to the officer side seat box with enough cable for customer to route to the instrument panel if needed**.**			
BATTERY SYSTEM			

Four (4)-12 volt, Delphi 700 CCA, 180 reserve capacity, high cycle, maintenance-free, group 31 batteries with a system rating of 2800 CCA at 0 degrees Fahrenheit and 720 minutes of reserve capacity shall be provided. The batteries shall be provided with threaded posts.			
BATTERY SYSTEM A single starting system shall be provided. An ignition switch and starter button shall be located on the instrument panel.			
MASTER BATTERY SWITCH A master battery switch, to activate the battery system, shall be provided inside the cab within easy reach of the driver. An indicator light shall be provided on the instrument panel to notify the driver of the status of the battery system.			
BATTERY COMPARTMENTS Batteries shall be placed on non-corrosive mats and be stored in well ventilated compartments located under the cab. Heavy-duty battery cables shall be used to provide maximum power to the electrical system. Cables shall be color-coded. Battery terminal connections shall be coated with anti-corrosion compound. Battery solenoid terminal connections shall be encapsulated with semi-permanent rubberized compound.			
JUMPER STUDS One (1) set of battery jumper studs with plastic color-coded covers shall be installed on the front side of battery box on driver's side. This shall allow enough room for easy jumper cable access. A tag shall be provided for positive/negative terminals.			
BATTERY CHARGER AIR COMPRESSER A Kussmaul Pump Plus 1000 single output battery charger/air compressor system with internal battery saver shall be provided. A display bar graph indicating the state of charge shall be mounted on the driver side seat riser. The battery saver circuit shall be capable of supplying up to three (3) amps for external loads such as hand light or auxiliary radio batteries. The 12-volt air compressor shall be installed to maintain the air system pressure when the vehicle is not in use. A selector switch shall be provided on the charger to operate the air compressor either as a DC compressor or as an AC compressor. If the selector switch is in the DC position the compressor shall operate whenever the pressure switch senses low system pressure, however if in the AC position the shoreline inlet must be plugged in before compressor shall operate. The battery charger/compressor shall be wired to the 120-volt shoreline to activate automatically when power is connected. Battery charger/compressor shall be located in the			

crew cab seat riser.			
ELECTRIC POWER FOR WINCH Electric power provisions shall be furnished for the portable winch from the chassis battery system. The receiver plug shall be located one at rear and one each side of body. A total quantity of four (4) receptacles shall be provided.			
ALTERNATOR A C.E. Niehoff, model C615, alternator shall be provided. It shall have a rated output current of 340 amps as measured by SAE method J56. Also, it shall have a custom three (3)-set point voltage regulator, manufactured by C. E. Niehoff. The alternator shall be connected to the power and ground distribution system with heavy-duty cables sized to carry the full rated alternator output.			
ELECTRIC BRAKE CONTROL WITH TRAILER WIRING There shall be a Tekonsha Voyager, model 9030, electric trailer module provided in the cab for hauling a trailer. The control shall be capable of connecting up to a two (2) or four (4) wheel trailer. There shall also be a Berg seven (7)-pin connector and plug provided at the rear of the apparatus for connection to the trailer. The connector shall be wired to conform to the SAE standards. The plug shall be shipped with loose equipment.			
ELECTRONIC LOAD MANAGER An electronic load management (ELM) system shall be provided that monitors the vehicles 12-volt electrical system, automatically reduces the electrical load in the event of a low voltage condition, and automatically restores the shed electrical loads when the low voltage condition expires. This ensures the integrity of the electrical system. The ELM shall monitor the vehicle's voltage while at the scene (parking brake applied). The system shall have the following features: System voltage monitoring Load manager on/off switch. Electrical load shedding. Four total load-shedding levels. Each level is capable of controlling ten relays. Load shedding levels are factory preset to maximize efficiency. Loads shed at level #1 are the non-NFPA lights in light bar, cab heater/blower, cab a/c evaporator, cab a/c condenser and optional third evaporator. Loads shed at level #2 are the crew cab heater and the cab a/c evaporator. Loads shed at level #3 are the defrost fans, exhaust			

fans, and additional compartment lights. Loads shed at level #4 are driver side scene lights, passenger side scene lights and rear scene lights.			
SEQUENCER An electronic load sequencer shall be provided. It will sequence loads connected to the Electronic Load Manager. The loads shall be turned on one at a time, minimizing the load placed on the alternator at one time.			
AMP DRAW REPORT The bidder shall provide, at the time of bid and delivery, an itemized print out of the expected amp draw of the entire vehicle's electrical system. The manufacturer of the apparatus shall provide the following: 1) Documentation of the electrical system performance tests. 2) A written load analysis, which shall include the following: A) The nameplate rating of the alternator. B) The alternator rating under the conditions specified per: NFPA 1901,1999 Edition, section 11-3.2. C) The minimum continuous load of each component that is specified per: NFPA 1901, 1999 Edition, section 11-3.2. D) Additional loads that, when added to the minimum continuous load, determine the total connected load. E) Each individual intermittent load. The bidder per NFPA 1901, 1999 Edition, Section 11-15, shall provide all of the above listed items.			
EXTERIOR LIGHTING Exterior lighting shall meet or exceed Federal Department of Transportation, Federal Motor Vehicle Safety Standards and National Fire Protection Association requirements in effect at time of proposal. Front headlights shall be halogen, rectangular shape, one (1) pair mounted in each front trim housing. The directional lights shall wrap-around on the outside corners of the trim housing. The headlight and directional lights shall be in the same assembly. Five *(5)* clearance and marker lights shall be installed across the leading edge of the cab.			
WARNING LIGHTS (Cab Face) Two (2) pair of Whelen warning lights shall be installed in a common bezel above the headlights. Two (2) 602000*U strobe lights to the outside. The color shall be driver side outside light blue, officer side outside light red. Two (2) 602000*U strobe lights to the inside. The color shall be driver side inside light red, officer			

side inside light blue. The same switch in the cab shall activate both sets of lights. To meet the NFPA requirements the inboard lights shall be load managed if colored, or disabled if clear, when the parking brake is set.			
ROTO RAY LIGHT A Roto Ray light shall be provided on the cab face located below the windshield. The light shall be provided with one (1) red, one (1) clear and one (1) blue. A lighted switch on the cab instrument panel shall activate the light. This light shall be switched off when the parking brake is set.			
BACK-UP ALARM An ECCO, Model SA917-PM2, solid-state electronic audible back-up alarm that actuates when the truck is shifted into reverse shall be provided. The device shall sound at 60 pulses per minute and automatically adjust its volume to maintain a minimum five *(5)* dba above surrounding environmental noise levels.			
CAMERA SYSTEM A Sony, model RVTV, single camera, all weather system, shall be provided. The monitor shall be located in the cab, within easy viewing of the driver. One (1) camera shall be located at the rear of truck as close to center as possible, within easy view of the driver. The vision system shall be activated with the switch on the monitor, and when the apparatus is put into reverse. The following components shall be included: One (1) SSM721AMR 7.00" non-glare monitor. One (1) SSC53OAM camera. One (1) VK318 water resistant cable (57.00*)* '.			
RESCUE BODY CONSTRUCTION The rescue body shall consist of individual compartment modules that are welded together to form the body. Welders that are certified to the standards of AWS shall perform all welding on the modules and body assembly.			

Module Fabrication Compartment modules shall be built in a fixture that shall ensure correct tolerances. The design of the module shall allow all welding to be performed, in areas that are not visible, after the body is assembled. All compartments shall be supported on the top, sides, and bottom. All modules shall be designed to provide maximum storage space. Each module shall have sidewalls that are not common with any other compartment. The compartment floors shall be a sweep out design, with the floor higher than the compartment doorframe.			
Body Assembly The modules shall be coupled, in a fixture, and welded together to form the body. The body shall be built as a separate component prior to being mounted on to the substructure. All primary, load-bearing structures shall be welded. All secondary, non-load bearing body panels shall be fastened to the primary structure with the use of an elastic adhesive.			
Body Panel Installation Body panels that are non-load bearing shall be bonded with an elastic adhesive. The use of an adhesive shall reduce the possibility of corrosion, provide sound deadening and increase the torsional strength of the assembly over conventional methods of fastening. All surfaces that require bonding shall be sanded or painted. Sika-Cleaner *205* shall be applied to all mating surfaces. Sikaflex 252 adhesive shall be applied and the panels shall be installed on to the body framework. Documented installation procedures, approved by the adhesive manufacturer, shall be followed to ensure a good bond.			
Body Warranty A copy of the fire apparatus manufacturer's warranty shall be included with the bid. The warranty shall state that the body shall be free of structural failures caused by defective design or workmanship for a warranty period of **ten (10) years from** the date the new vehicle is first delivered **or 100,000** miles, whichever occurs first and that defective parts, under the warranty, shall be repaired or replaced without charge to the original purchaser.			
RESCUE BODY CONSTRUCTION and SUPPORT STRUCTURE The rescue body shall be of all aluminum construction. The body shall use .12" (3 mm) and .18" (5 mm) 5052 aluminum alloy with a tensile strength of 38,000 psi and yield strength of 31,000 psi. The structural support framing used shall be 1.00" *(*25 mm) x 2.00" (51 mm), .12" (3 mm) wall thickness aluminum alloy tubing and 2.00" *(*51 mm) square, .12" (3 mm) wall thickness 6061 aluminum alloy tubing. The body shall be properly welded into a unitized construction. Proper reinforcing and supports shall be			

utilized throughout all construction to ensure strength and rigidity.			
Side Compartment Support The substructure for the body shall not be integral with the body but be a separate assembly. An under slung steel angle grid shall support the bottom of each lower compartment floor. The under slung support shall be constructed of a minimum .50" (13 mm) x 2.50" (64 mm) x 2.50" (64 mm) steel angle vertical support. The horizontal members shall be a minimum .38" (10 mm) x 2.00" (51 mm) x 3.00" (76 mm) and .38" (10 mm) x 2.50" (64 mm) x 3.50" (89 mm) steel angle. The compartment floors shall be bolted to the under slung substructure. The support shall transfer major stress to the chassis frame and not through the body. The complete substructure shall be washed, primed and finish painted before being bolted to the chassis frame. The substructure shall be bolted to the chassis frame rails with grade eight (8) bolts. A .75" x 3.00" rubber pad shall be fastened to the substructure in all areas that contact the body. The rubber shall serve as an isolator between the substructure and body. The rubber shall also allow body flex without damage. The body shall be secured to the sub structure in a minimum of six (6) locations with .38" (10 mm) diameter bolts. **Rear Side Compartment Support** The chassis frame rails shall be cut short behind the rear axle. An under slung steel compartment support shall be assembled and bolted to the rear frame rails. The compartment support shall be constructed as follows: The lower frame member, on each side, shall be a minimum of 3.00" (76 mm) x 6.00" (152 mm) x .38" (10 mm) steel tube. The length of the tube shall be determined by the width of the rear compartment. On top of each end of the tubes shall be a 3.00" (76 mm) x 8.00" (203 mm) x .38" (10 mm) steel tube, welded in place as a spacer, to drop the framework down from the original frame height. Welded to the lower frame tubes shall be a minimum of .38" (10 mm) 50,000-psi yield strength steel plate formed as a channel. The formed channel shall provide under body compartment support. There shall be two (2) supports provided for the rear side compartments. The compartment support assembly shall be bolted to the frame rails. A reinforcing plate shall be bolted to the frame rails, dropped frame spacer tube and the dropped frame			

member tube. One (1) reinforcing plate shall be provided on each side. The complete substructure shall be washed, primed and finish painted before being attached to the chassis frame. A .75" x 3.00" rubber pad shall be fastened to the substructure in all areas that contact the body. The rubber shall serve as an isolator between the substructure and body. The rubber shall also allow body flex without damage. The body shall be secured to the sub structure in a minimum of four (4) locations with .38" (10 mm) diameter bolts.			
Compartment Loading The 42.00" (1,067 mm) compartment module, behind the cab, shall be capable of holding 1,000 pounds *(*454 kg) on each side of the truck (2,000 pounds 908 kg total). The 62.00" *(*1,575 mm) compartment module, ahead of the rear wheels, shall be capable of holding 1,400 pounds (636 kg) on each side of the truck (2,800 pounds 1,272 kg total). The 74.00" (1,880 mm) compartment module, over the rear wheels, shall be capable of holding 1,000 pounds (454 kg) on each side of the truck (2,000 pounds 908 kg total). The 62.00" (1,575 mm) compartment module, behind the rear wheels, shall be capable of holding 1,400 pounds (636 kg) on each side of the truck (2,800 pounds 1,272 kg total). Strain gauge test documentation of the compartment loading capacities shall be provided upon request.			
Roof Construction The roof shall be .12" (3 mm) 3003 bright aluminum alloy tread plate. The roof shall be supported with 1.00" *(25* mm) x 2.00" (51 mm) aluminum alloy tubing, .12" (3 mm) wall thickness and 2.00" (51 mm) square, .12" (3 mm) wall thickness 6061 aluminum alloy tubing welded in place approximately 16.00" (406 mm) on center. The roof perimeter shall be covered with a 2.00" tread plate trim panel to provide a protective edge.			
Body Size The overall length of the body shall be 252.00" (6,401 mm). The height of the body shall be 92.00" (2,337 mm). The total storage space available in the body shall be 869 cubic feet (24.6 cubic meters).			
ROLL-UP DOORS Eight (8) compartment doors shall be installed on the side compartments that are an anodized satin finish. The doors shall be double-faced aluminum construction manufactured by R-O-M Robinson. Lath sections shall be an interlocking rib design and shall be individually replaceable without complete disassembly of the door. Between each slat at the pivoting joint shall be a PVC inner seal to prevent metal-to-metal contact and			

prevent dirt or moisture from entering the compartments. Seals shall allow door to operate in extreme temperatures ranging from plus180 to minus 40 degrees Fahrenheit. Side, top and bottom seals shall be provided to resist ingress of dirt and weather and be made of Santoprene. All hinges, barrel clips and end pieces shall be nylon 66. All nylon components shall withstand temperatures from plus 300 to minus 40 degrees Fahrenheit. Hardened plastic shall not be acceptable. A polished stainless steel lift bar shall be provided for each roll-up door. The lift bar shall be located at the bottom of door and have latches on the outer extrusion of the doors frame. A ledge shall be supplied over lift bar for additional area to aid in closing the door. The doors shall be constructed from an aluminum box section. The exterior surface of each slat shall be flat. The interior surfaces shall be concave to provide strength and prevent loose equipment from jamming the door from inside. To conserve space in the compartments, the spring roller assembly shall not exceed 3.00” in diameter. A roll-up door that retracts below the compartment ceiling (garage door style) shall not acceptable. The header for the roll-up door assembly shall not exceed 4.00”. A heavy-duty magnetic switch shall be used for control of the interior compartment lights and the “open compartment door” warning light in the cab. All mechanical components of the door shall be warranted to be free from defects in materials and workmanship for the lifetime of the vehicle. All parts covered under this warranty shall be to the original owner. The roll up doors exterior paint finish (if applicable) shall be warranted against blistering, peeling, bubbling, lack of adhesion or any other manufacturing or material defect for a period of **six (6) years.** The roll up doors shall also be warranted against corrosion perforation for a period of **ten (10) years.**			

LEFT FORWARD COMPARTMENTS Located behind the cab shall be the first compartment. The compartment dimensions shall be 42.00" (1067 mm) wide x *85.75"* (2178 mm) high x 26.00" (660 mm) deep at the floor level. The area over the frame rails shall be 42.00" (1067 mm) wide x 63.75" (1619 mm) high and shall extend through to the right side of the body. The compartment clear door opening shall be 39.50" (1003 mm) wide x 69.00" (1753 mm) high. The second compartment behind the cab shall be 62.00" (1575 mm) wide x 85.75*"* (2178 mm) high x 26.00" (660 mm) deep at the floor level. The area over the frame rails shall be 62.00" (1575 mm) wide x 63.75" (1619 mm) high and shall extend through to the right side of the body. The compartment clear door opening shall be 59.50" (1511 mm) wide x 69.00" (1753 mm) high.			
Mounting Tracks Installed in all of the storage compartments on the vehicle shall be mounting tracks for accessories such as trays and shelves.			
LEFT OVER WHEEL COMPARTMENT Located above the rear wheels shall be a compartment. The compartment dimensions shall be 74.00" (1880 mm) wide x 53.00*"* (1346 mm) high. The depth shall extend through to the right side of the body. The compartment clear door opening shall be 71.50*"* (1816 mm) wide X37.25" (921 mm) high.			
Wheel Well Area The rear fender shall be an integral part of the body and compartment modules. The inside of the fender shall be fitted with a full circular inner fender liner constructed of aluminum.			
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UNDER BODY BAG AND CRIB COMPARTMENT An under body compartment shall be provided. Construction shall be of bright aluminum tread plate with an aluminum tread plate door. A D-ring handle shall be provided for opening the door. The door shall have weather stripping installed around all opening surfaces to provide a weatherproof seal. A slide out drawer capable of holding 500 pounds shall be provided in the compartment. Inside compartment dimensions shall be 60.00” wide by 28.50” deep by 6.00” high on the side of the truck without the exhaust. On the exhaust side the dimensions shall be 60.00” wide by 23.50” deep by 6.00” high. Installed under the body ahead of the rear wheels shall be two (2) ONE EACH SIDE UNDER BODY IN FRONT OF REAR WHEELS.			
AWNING A roll-up style awning made of a fire retardant type material shall be supplied. The awning shall be stored in a metal housing, on the side of the body, when not in use. When fully extended, the awning shall be self supported, without the use of poles extending to the ground. The awning shall measure 16 feet by 8 feet when in the extended position. The color shall be gray. The awning shall be installed on the right side. A total of one (1) shall be supplied.			
ROOF COMPARTMENT, 7 FOOT A compartment constructed of .12” bright aluminum tread plate shall be provided. The compartment shall be of single wall design, with a floor, and have a 1.00” flange around the top to provide a weather resistant			

seal. The compartment door shall be constructed of .12" bright aluminum tread plate that has a 1.00" flange formed down, to provide an additional seal. The compartment door shall hinge on the outboard side, with a full-length stainless steel hinge. A chrome plated grab handle shall be installed on the door for opening. Two (2) gas cylinder struts shall assist and hold the door in the open position. A socket and plunger assembly shall be provided to hold the door closed. A weather-strip seal shall be provided on the inside of the door around the edges. A 4.00" diameter compartment light shall be mounted to the underside of each door. An automatic door switch shall turn the light on when the door is opened. The switch shall also provide indication to the "open door" indicator light, inside the cab. The compartment shall be 84.00" long x 26.00" wide x 18.00" deep. The compartment shall be bolted on to the roof of the body. A total of one (1) shall be provided. Locate a hatch crossway on roof to be approximately 8' long.			
ROOF COMPARTMENT 9 FOOT A compartment constructed of .12" bright aluminum tread plate shall be provided. The compartment shall be of single wall design, with a floor, and have a 1.00" flange around the top to provide a weather resistant seal. The compartment door shall be constructed of .12" bright aluminum tread plate that has a 1.00" flange formed down, to provide an additional seal. The compartment door shall hinge on the outboard side with a full-length stainless steel hinge. A chrome plated grab handle shall be installed on the door for opening. Two (2) gas cylinder struts shall assist and hold the door in the open position. A socket and plunger assembly shall be provided to hold the door closed. A weather-strip seal shall be provided on the inside of the door, around the edges. A 4.00" diameter compartment light shall be mounted to the underside of each door. An automatic door switch shall turn the light on when the door is opened. The switch shall also provide indication to the "open door" indicator light, inside the cab. The compartment shall be 108.00" long x 26.00" wide x 18.00" deep. The compartment shall be bolted on to the roof of the body. A total of two (2) shall be provided located one each side.			
BODY FENDER CROWNS Stainless steel fender crowns shall be provided around the rear wheel openings. A rubber welting shall be provided between the body and the crown to seal the seam and restrict moisture from entering. A dielectric barrier shall be provided between the fender crown fasteners (screws) and the fender sheet metal to prevent corrosion.			
HITCH RECEIVER A hitch receiver shall be installed at the front, rear			

and the sides of the apparatus in front of the rear wheels through the body. All hitch receivers shall be constructed of heavy steel tubing and reinforced to the truck framework, for the receiving portion, including a heavy-duty slide-in tube with a ball. The rear hitch receiver shall be a Class III trailer hitch. The class III rating is 5,000 pounds towing and 500 pounds tongue with weight distributing hitch. The side hitch receivers shall be capable of retaining a 9,000-pound portable winch. Slide-in portion shall be held in place by two (2) safety pins with clips. A seven-prong trailer-wiring plug shall be provided at the rear with a weatherproof snap cover.			
ROOF ACCESS LADDER A ladder shall be provided at the rear of the body for access to the top of the body. Ladder rungs shall be 15.25" wide and the overall width shall be 17.75". Ladder shall extend above the roofline to provide easier and safer maneuverability both on and off the ladder. The ladder rails and rungs shall be constructed of 1.25" diameter non-slip extruded aluminum handrail material. The ladder rungs shall be bolted to the ladder rails with a center mounted solid rod inside the extruded aluminum non-slip rung material. The ladder shall be secured to the body with stainless steel end stanchions center side on rear.			
STORAGE RACK FOR SPARE SCBA BOTTLES A storage rack shall be provided. Racks to hold (4) bottles and (4) that are 6.62" in diameter and (4) that is larger SCUBA bottles. There will be an 8-bottle rack up high in compartment P1, above the fill station to hold eight (8) spare SCBA bottles. The rack shall be built to hold the bottles. The rack shall be constructed of .12" aluminum. The rack shall be left unpainted. A rubber bumper shall be provided on the rear wall of each slot to absorb the shock of the bottle being placed into position. A scuff tape material shall be applied to the inside of the slots to reduce scratching the bottles. Protection shall be provided on the edge of the rack to prevent damage while loading. The inside dimension of each bottle slot shall be 7.50".			
SLIDE-OUT TOOL BOARD. 33" x 22" A slide-out aluminum tool board shall be provided. The tool board shall be a minimum of .18" thick with .20" diameter holes in a pegboard pattern, on 1.00" centers. The board dimensions shall be 33.00" high x 22.00" long. A .81" flange shall be formed along the top and sides of the board. The corners of the flanges shall be welded to provide a rigid assembly. The board shall be mounted on a small sliding tray. The construction of the tray shall consist of 6061 -T6			

aluminum extrusions for the sides with a .18" thick aluminum floor. The corners shall be welded to form a rigid unit. The capacity rating shall be 500 pounds minimum in the extended position. The slide assemblies shall be manufactured with 6061 -T6 aluminum extrusions. The tray shall be supported by a minimum of four (4) roller bearings each rated for a 500-pound load. The board shall slide-out of the compartment two thirds of its length. Positive locks for the stowed and extended position shall be provided. The board shall be mounted to an aluminum track to allow sideways adjustment of the tool board. There shall be a total of two (2) provided exact location to be chosen at approval drawing meeting but tool board will have a wider tray at the bottom of the board to hold SCUBA gear.			
SLIDE-OUT ADJUSTABLE HEIGHT TRAY. 33" x FULL DEPTH A sliding tray shall be provided. The construction shall consist of 6061 -T6 aluminum extrusions for the sides with a .18" thick aluminum floor. The corners shall be welded to form a rigid unit. The capacity rating shall be 500 pounds minimum in the extended position. The slide assemblies shall be manufactured with 606 1-T6 aluminum extrusions. The tray shall be supported by a minimum of eight (8) roller bearings each rated for a 500-pound load. An automatic lock shall be provided for both the in and out tray positions. The lock trip mechanism shall be located at the front of the tray and shall be easily operated with a gloved hand. The tray shall slide-out of the compartment on either side of the vehicle two thirds of its depth. Each tray shall be adjustable up and down within the compartment. The tray shall have an inside dimension of 32.93" wide x85.81" long x 3.00" deep. There shall be a total of two (2) provided Locate in transverse compartments D3/P3 and in D1/P 1.			
SLIDE-OUT ADJUSTABLE HEIGHT TRAY 53" X 42" A sliding tray shall be provided. The construction shall consist of 606l-T6 aluminum extrusions for the sides with a .18" thick aluminum floor. The corners shall be welded to form a rigid unit. The capacity rating shall be 500 pounds minimum in the extended position. The slide assemblies shall be manufactured with 606 1-T6 aluminum extrusions. The tray shall be supported by a minimum of four (4) roller bearings each rated for a 500-pound load. An automatic lock shall be provided for both the in and out tray positions. The lock trip mechanism shall be located at the front of the tray and shall be easily operated with a gloved hand. The tray shall slide-out of the compartment two thirds of its depth. Each tray shall be adjustable up and down within the compartment. The tray shall have an inside dimension of 52.93" wide x 41.62" long x 3.00" long.			

There shall be a total of two (2) provided one each side in rear side compartment.			
SLIDE-OUT FLOOR MOUNTED TRAY A sliding tray shall be provided. The construction shall consist of .18" thick aluminum formed to provide a 2.00" high wall around the perimeter. The corners shall be welded to form a rigid unit. The capacity rating shall be 500 pounds minimum in the extended position. The slide mechanisms shall have ball bearings for ease of operation and years of dependable service. The slide assembly shall be manufactured by General Device. An automatic lock shall be provided for both the in and out tray positions. The lock trip mechanism shall be located at the front of the tray and shall be easily operated with a gloved hand. The tray shall be built to fit the size of the floor area where the tray is installed. A total of five (5) shall be provided location to be chosen at approval drawing meeting			
SLIDE-OUT TILT DOWN ADJUSTABLE HEIGHT TRAY, 33" x 42" A slide-out, tilt down tray shall be provided. The construction shall consist of 6061 -T6 aluminum extrusions for the sides with a .18" thick aluminum floor. The corners shall be welded to form a rigid unit. The capacity rating shall be 200 pounds minimum in the extended position. The slide assemblies shall be manufactured with 6061 -T6 aluminum extrusions. The tray shall be supported by a minimum of four (4) roller bearings each rated for a 500-pound load. Approximately two thirds of the tray shall slide-out from its stored position and shall tip 30 degrees down from horizontal. Each tray shall be adjustable up and down within the compartment. An automatic lock shall be provided for the in position. The lock trip mechanism shall be located at the front of the tray and shall be easily operated with a gloved hand. Rubber padded stops shall be provided for both the in out tray position. The tray shall have an inside dimension of 32.38" wide x 41.62" long. There shall be a total of seven (7) provided exact location to be chosen at approval drawing meeting.			
SLIDE-OUT TILT DOWN ADJUSTABLE HEIGHT TRAY, 53" x 22" A slide-out, tilt down tray shall be provided. The construction shall consist of 6061 -T6 aluminum extrusions for the sides with a .18" thick aluminum floor. The corners shall be welded to form a rigid unit. The capacity rating shall be 200 pounds minimum in the extended position. The slide assemblies shall be manufactured with 6061 -T6 aluminum extrusions. The tray shall be supported by a minimum of four (4) roller bearings each rated for a 500-pound load. Approximately two thirds of the tray shall slide-out from its stored position and shall tip 30 degrees down from horizontal. Each tray shall be adjustable up and			

down within the compartment. An automatic lock shall be provided for the in position. The lock trip mechanism shall be located at the front of the tray and shall be easily operated with a gloved hand. Rubber padded stops shall be provided for both the in out tray position. The tray shall have an inside dimension of 52.38" wide x 21.62" long. There shall be a total of four (4) provided location to be chosen at approval drawing meeting.			
LIGHTING. INTERIOR CEILING A 120 volt recessed fluorescent light with (2) two 24.00" bulbs shall be provided. A total of one (1) shall be provided Center in command desk. To be run off the auto transfer switch.			
REAR BUMPER A rear bumper shall be provided that is an integral part of the rear body substructure. The bumper shall be approximately 12.00" deep x 90.00" wide and spaced out from the body approximately 1.00". The bumper shall have an aluminum tread plate deck with a 3.00" radius on each of the two outside corners. The body shall have a kick plate behind the bumper from the bottom of the body and up past the top of the bumper 3.38".			
TOW HOOKS Two (2) painted steel tow hooks shall be installed under the tailboard of the truck. When force is applied to the tow hooks, it shall be transmitted to the frame rail. The tow hook assembly shall be designed and positioned to allow up to a 30 degree upward angled pull of 17,000 pounds, or a 20,000 pound straight horizontal pull in line with the centerline of the vehicle. The tow hook design shall have been fully tested and evaluated using strain gauge testing techniques.			
RUB RAIL Bottom edge of the side compartments shall be trimmed with a bright aluminum extruded rub rail. Trim shall be 2.12" high with 1.38" flanges turned outward for rigidity. The rub rails shall not be an integral part of the body construction, which allows replacement in the event of damage.			
BODY FENDER CROWNS Stainless steel fender crowns shall be provided around the rear wheel openings. A rubber welting shall be provided between the body and the crown to seal the seam and restrict moisture from entering. A dielectric barrier shall be provided between the			

fender crown fasteners (screws) and the fender sheet metal to prevent corrosion. **ELECTRICAL** All 12-volt electrical equipment installed by the apparatus manufacturer shall conform to modern automotive practices. All wiring shall be high temperature type. Wiring shall be run, in loom or conduit, where exposed and have grommets where wire passes through sheet metal. Automatic reset circuit breakers shall be provided which conform to SAE Standards. Wiring shall be color, function and number coded. Function and number codes shall be continuously imprinted on all wiring harness conductors at 2.00" intervals. Exterior exposed wire connectors shall be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids. Electrical wiring and equipment shall be installed utilizing the following guidelines: (1) All holes made in the roof shall be caulked with silicon, rope caulk is not acceptable). Large fender washers, liberally caulked, shall be used when fastening equipment to the underside of the cab roof. (2) Any electrical component that is installed in an exposed area shall be mounted in manner that shall not allow moisture to accumulate in it. Exposed area shall be defined as any location outside the cab or body area. (3) Electrical components, designed to be removed, for maintenance shall not be fastened with nuts and bolts. Metal screws shall be used in mounting these devices. Also a coil of wire shall be provided behind the appliance to allow them to be pulled away from mounting area for inspection and service work. (4) Corrosion preventative compound shall be applied to all terminal plugs located outside of the cab or body. All non-waterproof connections shall require this compound in the plug to prevent corrosion and for easy separation (of the plug). (5) All lights that have their sockets in a weather-exposed area shall have corrosion preventative compound added to the socket terminal area. (6) All electrical terminals in exposed areas shall have silicon (1890) applied completely over the metal portion of the terminal. All emergency light switches shall be mounted on a separate panel installed in the cab. A master warning light switch and individual switches shall be provided to allow pre-selection of emergency lights. The light switches shall be "rocker" type with an internal indicator light to show when switch is energized. All switches shall be properly identified and mounted in a removable panel for ease in servicing. Identification of the switches shall be done by either printing or etching on the switch panel. The switches and identification shall be illuminated.			

All lights and reflectors, required to comply with Federal Motor Vehicle Safety Standard #108, shall be furnished. Rear identification lights shall be recessed mounted for protection. Lights and wiring mounted in the rear bulkheads shall be protected from damage by installing a false bulkhead inside the rear compartments. An operational test shall be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order. The results of the tests shall be recorded and provided to the purchaser at time of delivery.			
STEP LIGHTS Two (2) Weldon, Model 9186-23882-30, step lights shall be provided. The step lights shall be provided at the rear body, one (1) each side of the rear compartment The step lights shall be activated by the same control as the perimeter lights.			
REAR FMVSS LIGHTING A pair of Weldon, Model 3884, and three (3) lamp modules shall be provided. Each module shall include a stop-tail light, directional light and backup light mounted in a polished aluminum housing. The lights shall be mounted on the face of the rear body compartments. Four (4) red reflectors shall be provided. A Weldon, Model 23 882-2600-00 license plate bracket shall be mounted on the driver's side above the warning lights. A Weldon, Model 9186-23882-30, step lamp shall illuminate the license plate. The three (3) identification lights located at the rear shall be installed per the following: As close as practical to the vertical Centerline. Centers spaced not less than six (6) inches or more than twelve (12) inches apart. Red in color. All at the same height. The outside clearance lights located at the rear shall be installed per the following: To indicate the overall width of the vehicle. At least one (1) each side of the vertical Centerline. All at the same height. As near the top as practical. To be visible from the rear and the side. Per FMVSS 108 and CMVSS 108 requirements.			
"DO NOT MOVE APPARATUS" INDICATOR A flashing red indicator light (located in the driving compartment) shall be illuminated automatically per NFPA (1996 edition, 9-11 or 1999 edition 11-11). The light shall be labeled "Do Not Move Apparatus If Light Is On".			
MESSAGES. DISPLAY. Do Not Move Truck There shall be the following five *(5)* warning			

messages included in this display located on the instrument panel within view of the driver: Warning Messages: D/S Door Open P/S Door Open Rear Door Open Ladder Rack Down			
COMPARTMENT LIGHTING Two (2) 4.00" diameter Truck-Lite, Model 40034, grommet mount lights shall be provided in each enclosed compartment side. One (1) light shall be mounted high on the sidewall and one (1) light shall be mounted low, on the opposite sidewall. Each light shall have a 1.44 amp, 21 candlepower one filament, and two-wire bulb. Opening the compartment door, on each side, shall automatically turn compartment lighting on.			
PERIMETER SCENE LIGHTS, CAB There shall be a Truck-Lite, model 40003, 4.00" grommet mount weatherproof light provided for each cab door. Lighting shall be designed to provide illumination on areas under the driver and officer riding area exits, which shall be activated automatically when the exit doors are opened and by the same means as the body perimeter lights. The lighting shall be capable of providing illumination at a minimum level of one (1) foot-candle on ground areas within 30.00" of the edge of the apparatus in areas, which personnel climb in or out of the apparatus or descend from the apparatus to the ground level.			
PERIMETER SCENE LIGHTS, BODY There shall be two (2) lights provided under the rear step area. The lights shall be spaced one (1) each side of apparatus and have a clear lens. A parking brake shall activate the perimeter scene lights. The lighting shall be capable of providing illumination at a minimum level of one (1) foot-candle on ground areas within 30.00" of the edge of the apparatus in areas designed for personnel to climb onto the apparatus or descend from the apparatus to the ground level.			
REAR SCENE LIGHTS Two (2) pair of Whelen, Model: 90*000*R, scene lights shall be installed, **ONE PAIR EACH SIDE ON UPPER SIDE SECTIONS OF BODY.** The lights shall have a prismatic inner lens to redirect light downward 26 degrees. These lights shall be controlled by the following options: From the first switch feature, a control at the driver side switch panel. From the second switch feature, a control at the driver side rear of the truck. From the third switch feature, there shall be no control of this option. These lights shall be provided with flange kit.			
REAR WORK LIGHT The work area immediately behind the vehicle shall be illuminated by a pair of white Weldon1010, 7.00"			

rear scene lights. A switch located in the cab, on the driver's side instrument panel, shall control the lights.			
AIR HORN SYSTEM Two (2) Hadley, Model 978-0, air horns shall be provided and located in the front bumper, recessed one each side. The horn system shall be piped to the air brake system wet tank utilizing .38" tubing. A pressure protection valve shall be installed in-line to prevent the loss of air in the air brake system.			
AIR HORN CONTROL A lanyard rope pull control shall be provided within reach of the driver.			
ELECTRONIC SIREN A Federal, model PA-300MSC, electronic siren with noise canceling microphone shall be provided. The electronic siren shall be controlled on the siren head only. No horn button or foot switches shall be required.			
SPEAKER There shall be one (1) speaker provided and recessed in the bumper extension. Each speaker shall be a Federal, model BP1OOP, 100 watt, bumper mount, with polished aluminum finish. Each speaker shall be connected to the siren amplifier.			
ELECTRONIC SIREN, (Auxiliary) A Federal, model E-Q2B, electronic siren with noise canceling microphone shall be provided. Two (2) foot switches, one (1) located on the officer's side and one (1) on the driver's side, shall actuate the mechanical siren.			
AUXILIARY SPEAKER There shall be one (1) speaker recessed in the front bumper, driver's side. The speaker to be supplied shall be a Federal, Model: BP200-Q, 200 watt. This speaker shall be connected to the auxiliary electronic siren. A second siren brake switch shall be installed on the officer's side of dashboard. The switch shall be a chrome push button style.			
WARNING LIGHT (Cab Roof) **Two (2) 36.00", Code 3 MX7000, Model 736A, light bars** shall be mounted on the cab roof at a forty-five (45) degree angle to the front of the cab. Each light bar shall include the following: **Four (4) 50 watt D-Tech rotators** **Two (2) Diamond mirrors** **One (1) Intersection light** – one (1) red filter for the driver's side light bar-one (1) blue filter for the officer's side light bar. **One (1) Pursuit lights** – one (1) blue filter for the drier's side light bar –one (1) red filter for the officer's side light bar. **Two (2) 50 watt flashing halogen lights** a. **One (1) red filter** – Driver's side light bar shall have this filter on the rear light – Officer's side light bar shall have this filter on the forward light.			

b. **One (1) blue filter** – Driver's side shall have this filter on the forward light – Officer's side light bar shall have this filter on the rear light. **One (1) heavy-duty flasher.** Light bars shall have the "hard coat" option on both of them and shall be furnished with clear domes. **One (1) switch** located in the cab on the switch panel shall control both light bars. The two (2) center rotators in each light bar, the 50 watt flashing lights, the pursuit lights and the intersection lights may be load managed when the parking brake is set.			
WARNING LIGHTS CAB, SIDES OF CAB, ON EACH SIDE OF ELEVATED CAB FACING OUTWARD. One (1) each of Code 3, Model MX7000, Model 718A, MX Beacon, 18" light bars shall be mounted on the elevated portion of the rear part of cab facing outward and centered. One on each side. Light bars shall each have two (2) red and blue D-Tech standard rotators per unit with one (1) diamond mirror per unit. One (1) heavy-duty flasher per unit. One (1) switch located in the cab on the switch panel shall control both light bars. Light bars shall be furnished with clear, "hard coat" domes.			
WARNING LIGHTS (Side) One (1) pair of Code 3 Model 40BZ, strobe lights with bezel shall be provided. Each light shall have a linear strobe lamp. These lights shall be installed on the side of the body. Locate one on each side of the Kenworth engine hood. The color of the lights shall be clear. To meet the NFPA requirements the lights in this option shall be load managed or disabled, if clear, when parking brake is set.			
WARNING LIGHTS (Side) One (1) pair of Code 3, Model SL2, strobe lights with bezel shall be provided. These lights shall be installed on the side of the body on rear of body. The color of the lights shall be red. To meet the NFPA requirements the lights in this option shall be load managed or disabled, if clear, when the parking brake is set.			
TRAFFIC DIRECTING LIGHT A Whelen, Model TA852L, eight (8) light L.E.D. Array shall be mounted on the rear of the vehicle, between the rear compartment and the hose bed area. The light shall be *2.54"* high x *43.85"* wide x 1.44" deep. A control head shall be used to actuate the light. This control head shall be located in the cab and be easily accessible to the driver. The control unit shall simulate the action of the light at the rear of the vehicle.			
SIDE ZONE LOWER LIGHTNG Whelen, Model 602000** linear strobe lights shall be located at the following positions: Two (2) lights, one each side on the bumper extension **-** blue each front bumper. Two (2) lights, above rear wheels **-** red each rear fender.			

The above four (4) lights shall be required to meet the lower level optical warning and optical power requirements of NFPA. A lighted switch on the cab instrument panel shall control the lights. There shall be a Whelen, Model UPS-64LX, power supply provided for controlling the flash pattern of the strobe lights. These lights shall be installed with 6E or 64 Flange Kit.			
REAR ZONE LOWER LIGHTING Two (2) Whelen Model 602000*U one red light on the right and one blue light on the left linear strobe lights shall be located with tail lights at the rear of the apparatus, meeting the lower level optical warning and optical power requirements of NFPA. Each light shall be installed with 6E or 64 Flange Kit.			
WARNING LIGHTS (Rear upper zone) Two (2) Code3, Model 81, halogen warning lights shall be provided at the rear bulkhead of the truck, located one (1) each side. The color of the lights shall be red. There shall also be, two (2) model 81 halogen warning light provided at the rear upper corner of side sheet, one (1) each side. The color of the light shall be red. Per NFPA, the lights shall be switched on by a lighted switch on the instrument panel and be active whenever the switch is on.			
ELECTRICA SYSTEM GENERAL DESIGN for ALTERNATING CURRANT The following guidelines shall apply to the 120/240 VAC system installation: **General** Any fixed line voltage power source producing alternating current (ac) line voltage shall produce electric power at 60 cycles plus or minus 5 cycles. Except where superseded by the requirements of NFPA 1901, all components, equipment and installation procedures shall conform to NFPA 70, National Electrical Code (herein referred to as the NEC). Line voltage electrical system equipment and materials included on the apparatus shall be listed and installed in accordance with the manufacturer's instructions. All products shall be used only in the manner for which they have been listed. **Grounding** Grounding shall be in accordance with Section 250-6 "Portable and Vehicle Mounted Generators" of the NEC. Ungrounded systems shall not be used. Only stranded or braided copper conductors shall be used for grounding and bonding. An equipment grounding means shall be provided in			

accordance with Section 250-91 (Grounding Conductor Material) of the NEC. The grounded current carrying conductor (neutral) shall be insulated from the equipment grounding conductors and from the equipment enclosures and other grounded parts. The neutral conductor shall be colored white or gray in accordance with Section 200-6 (Means of Identifying Grounding Conductors) of the NEC. In addition to the bonding required for the low voltage return current, each body and driving or crew compartment enclosure shall be bonded to the vehicle frame by a copper conductor. This conductor shall have minimum amperage rating of 115 percent of the nameplate current rating of the power source specification label as defined in Section 310-15 (amp capacities) of the NEC. A single conductor properly sized to meet the low voltage and line voltage requirements shall be permitted to be used. All power source system mechanical and electrical components shall be sized to support the continuous duty nameplate rating of the power source. **Operation** Instructions that provide the operator with the essential power source operating instructions, including the power-up and power-down sequence, shall be permanently attached to the apparatus at any point where such operations can take place. Provisions shall be made for quickly and easily placing the power source into operation. The control shall be marked to indicate when it is correctly positioned for power source operation. Any control device used in the drive train shall be equipped with a means to prevent the unintentional movement of the control device from its set position. A power source specification label shall be permanently attached to the apparatus near the operator's control station. The label shall provide the operator with detailed information. Direct drive (PTO) and portable generator installations shall comply with Article 445 (Generators) of the NEC. **Over current protection** The conductors used in the power supply assembly between the output terminals of the power source and the main over current protection device shall not exceed 144 inches. (3658 mm) in length. For fixed power supplies, all conductors in the power supply assembly shall be type THHW, THW, or use stranded conductors enclosed in nonmetallic liquid			

tight flexible conduit rated for a minimum of 194 degree Fahrenheit (90 degrees Celsius). For portable power supplies, conductors located between the power source and the line side of the main over current protection device shall be type SO or type SEQ with suffix WA flexible cord rated for 600-volts at 194 degrees Fahrenheit (90 degrees Celsius). **Wiring Methods** Fixed wiring systems shall be limited to the following: Metallic or nonmetallic liquid tight flexible conduit rated at not less than 194 degrees Fahrenheit (90 degrees Celsius) or Type SO or Type SEO cord with a WA suffix, rated at 600 volts at not less than 194degrees Fahrenheit (90 degrees Celsius). Electrical cord or conduit shall not be attached to chassis suspension components, water or fuel lines, air or air brake lines, fire pump piping, hydraulic lines, exhaust system components, or low voltage wiring. In addition the wiring shall be run as follows. Separated by a minimum of 12 inches (305 mm), or properly shielded, from exhaust piping Separated from fuel lines by a minimum of six (6) inches (152 mm) distance. Electrical cord or conduit shall be supported within six (6) inches (152 mm) of any junction box and at a minimum of every 24 inches (610 mm) of continuous run. Supports shall be made of nonmetallic materials or corrosion protected metal. All supports shall be of a design that does not cut or abrade the conduit or cable and shall be mechanically fastened to the vehicle. **Wiring Identification** All line voltage conductors located in the main panel board shall be individually and permanently identified. The identification shall reference the wiring schematic or indicate the final termination point. When pre-wiring for future power sources or devices, the un-terminated ends shall be labeled showing function and wire size. **Wet Locations** All wet location receptacle outlets and inlet devices, including those on hardwired remote power distribution boxes, shall be of the grounding type provided with a wet location cover and installed in accordance with Section 210-7 “Receptacles and Cord Connections” of the NEC. All receptacles located in a wet location shall be not less than 24 inches (610 mm) from the ground.			

Receptacles on off-road vehicles shall be a minimum of 30 inches (762 mm) from the ground. The face of any wet location receptacle shall be installed in a plane from vertical to not more than 45 degrees off vertical. No receptacle shall be installed in a face up position. **Dry Locations** All receptacles located in a dry location shall be of the grounding type. Receptacles shall be not less than 30 inches (762 mm) above the interior floor height. All receptacles shall be marked with the type of line voltage (120-volts or 240-volts) and the current rating in amps. If the receptacles are direct current, or other than single phase, they shall be so marked. **Listing** All receptacles and electrical inlet devices shall be listed to UL 498, Standard for Safety Attachment Plugs and Receptacles, or other appropriate performance standards. Receptacles used for direct current voltages shall be rated for the appropriate service. **Electrical System Testing** The wiring and associated equipment shall be tested by the apparatus manufacturer or the installer of the line voltage system. The wiring and permanently connected devices and equipment shall be subjected to a dielectric voltage withstand test of 900-volts for one (1) minute. The test shall be conducted between live parts and the neutral conductor, and between live parts and the vehicle frame with any switches in the circuit(s) closed. This test shall be conducted after all bodywork has been completed. Electrical polarity verification shall be made of all permanently wired equipment and receptacles to determine that connections have been properly made. **Operational Test per NFPA 1901 Chapter 19-14.4** The apparatus manufacturer shall perform the following operation test and shall certify that the power source and any devices that are attached to the line voltage electrical system is properly connected and in working order. The prime mover shall be started from a cold start condition and the line voltage electrical system loaded to 100 percent of the nameplate rating			

The power source shall be operated at 100 percent of its nameplate voltage for a minimum of two (2) hours unless the system meets category certification as defined in NFPA 1901 chapter 19-14.5. Where the line voltage power is derived from the vehicle's low voltage system, the minimum continuous electrical load as defined in NFPA 1901 Chapter 9 shall be applied to the low voltage electrical system during the operational test.			
ONAN 30kW SINGLE PHASE GENERATOR The apparatus shall be equipped with a complete electrical power system. The wiring and generator installation shall conform to the present National Electrical Code Standards of the National Fire Protection Association. The installation shall be designed for continuous operation without overheating and undue stress on components. The generator shall be a single phase, four (4)-wire, Onan 30kW driven by a transmission "power takeoff' attached to the side of the transmission. Generator performance shall meet the American National Standards Institute (ANSI) C84. 1-1982 voltage requirement as utilized from the receptacle. Generator shall have a built in automatic voltage control. Generator shall have a NEMA MG21 rating Continuous Duty Rating: 30,000 watts Phase: Single Nominal Cycles: 60 hertz Nominal Amp Rating: 125 at 240-volts Engine Speed at Engagement: Idle Engine Speed Engaged: 1100/1400 rpm range Generator RPM: 1800 rpm An electronic governor shall control The output of the generator. The truck engine shall be programmed so the generator's output is at 60 hertz. The main chassis transmission PTO shall power the generator. The generator shall be operable in the stationary mode with a shift control located inside the cab with an indicator light to note engagement. For safety, the automatic high idle shall be activated through interlocks only after the chassis parking brake control is in the park position, the generator PTO transmission has made a complete shift and the truck transmission is in neutral. An electric/hydraulic valve shall supply hydraulic fluid to the clutch engagement unit provided on the chassis PTO drive. To properly monitor the generator performance and load demands during operation, the generator shall be equipped with a full instrument and control package. This panel shall be mounted adjacent to the			

load center. The following instruments shall be installed in the panel: One (1) Voltmeter Two (2) Ammeters One (1) Frequency Meter One (1) Hour Meter One (1) "Power On" Green Indicator Light One (1) PTO Engagement Indicator Light Two (2) Fuse Holders: With two (2) amp fuses for gauge protection The meter and indicators shall be installed near eye level in the compartment. Instruments shall be flush mounted in an appropriate sized weatherproof electrical enclosure. All instruments used shall be accurate within+/- two (2) percent. Highly qualified electrical technicians to assure the required level of safety and protection to the fire apparatus operators shall install the system. The wiring, electrical fixtures and components shall be to the highest industry quality standards available on the domestic market. The equipment shall be the type designed for mobile installations subject to vibration, moisture and severe continuous usage. All electrical wiring from the load center shall be fine stranded copper S.O. type with a 600-volt jacket. The wire shall be sized to the load and circuit breaker rating. The wire size shall be 10-gauge on 30 amp circuits, 12-gauge on 20 amp circuits and 14-gauge on 15 amp circuits. The S.O. cable shall be run in corner areas and extruded aluminum pathways built into the body for easy access. Any S.O. cord not run in an enclosed raceway or cable tray shall have an additional abrasion resistant covering. The main load center shall have circuit breakers rated to load demand. Individual breakers shall be provided for all receptacles to isolate a tripped breaker from affecting any other on-line equipment.			
GENERATOR LOCATION The generator shall be mounted under the body between the frame rails.			
GENERATOR START A switch shall be located on the cab instrument panel to engage the generator.			
CIRCUIT BREAKER PANEL The circuit breaker panel shall be located Compartment D2.			
240 VOLT LIGHTING A Fire Research Model FC2O 1 light shall be provided. The light shall be recessed in a cast aluminum housing. The light fixture shall be a single 1000-watt, 240-volt, Focus 200 Series unit that draws 4.20 amps. There shall be four (4) lights provided.			

Two each side in upper section of the body.			
120 VOLT LIGHTING The apparatus shall be equipped with a telescoping top raise Fire Research, Model FC600 quartz tube tripod floodlight with a Focus Light Head Model M10. Each light head shall be 120 volt, 1,000 watts, and draw 8.30 amps. The light head shall swivel 360 degrees left or right and tilt up and down. The light shall be sized to fit. A Fire Research FC603 quick release truck-mounting bracket shall be provided and installed on the truck in the specified location. A receptacle shall be provided near the base of the light. A 20 amp, 120 volt, Fire Power plug shall be provided on the end of the light cord. A total of two (2) lights shall be provided one on each side on the rear of the body.			
ELECTRIC CORD REEL Furnished with the 120 volt AC electrical system shall be a Hannay, series 1600, cord reel. The reel shall be provided with a 12-volt electric rewind switch that is guarded to prevent accidental operation and labeled for its intended use. The switch shall be protected with a fuse and installed at a height not to exceed 72 inches above the operators standing. A Nylatron guide shall be provided to aid in the payout and loading of the reel. A ball stop shall be provided to prevent the cord from being wound on the reel. A label shall be provided in a readily visible location adjacent to the reel. The label shall indicate current rating, current type, phase, voltage and total cable length. A total of two (2) cord reels shall be provided in ceiling of front compartment (one each side). The cord reel should be configured with three (3) conductors.			
CORD Provided for electrical distribution shall be 200 feet of Carol Super Vu-Tron II yellow 10/3 electrical cord. The cord shall be provided with a Fire Power connector. A total of two (2) shall be provided.			
HYDRAULIC HOSE REEL Manufacturer shall supply a Hannay stainless steel hydraulic hose reel with 100 feet of rescue/hydraulic hose. Reel shall have a 12-volt electric rewind switch. Installation location shall be determined at drawing approval.			

PORTABLE JUNCTION BOX There shall be four (4)-120 vac, Fire Power receptacles, and a locator/indicator light provided in an outlet box. The junction box construction shall be weatherproof and have flip-up covers lined with soft neoprene rubber at each outlet opening. The junction box shall be a Circle-D, Model PF-51G-FP. Cord from reel shall be direct wired. A total of two (2) shall be provided.			
JUNCTION BOX HOLDER There shall be an aluminum junction box holder installed adjacent to the cord reel. A total of two (2) shall be installed. Two (2) four (4)-way junction box holders will be added. Location will be on floor of each compartment over the wheels by the junction boxes.			
POWER OUTLET STRIP A six (6)-place power outlet strip shall be provided In crew area Center strip in this cabinet. Run thru auto transfer. The outlet strip shall contain 120 volt, 15 amp straight blade receptacles. The power outlet shall be wired to the shoreline input. One (1) receptacle shall be provided.			
120 VOLT INTERIOR RECEPTACLE Receptacle shall be a NEMA 5-15, 120-volt, 15 amp, three (3) wire duplex household type with a non-weather resistant cover connector to the generator. There shall be two (2) receptacles provided. Installed in the command center, one inside of each outer cabinet. Run thru the auto transfer switch.			
20 AMP RECEPTACLE Wired to the power supply shall be four (4) receptacles that are a Fire Power 120-volt 20 amp three (3)-wire type with weather resisting cover located one each side of body in fender panels and one each side on rear of body.			
20 AMP 220 VOLT RECEPTACLE Wired to the power supply shall be one (1) receptacle that are 220 volt 20 amp three wire twist-lock NEMA L6-20 type with a weather resisting cover located on D/S rear bulkhead.			
KUSSMAUL AUTO EJECT FOR SHORELINE One (1) shoreline receptacle shall be provided to operate the dedicated 120-volt circuits on the truck without the use of the generator. The shoreline receptacle (s) shall be provided with a NEMA 5-15, 120 volt, 15 amp, straight blade Klussmaul Super auto eject plug with a red weatherproof cover. The cover is spring loaded to close, preventing water from entering when the shoreline is not connected. The unit is completely sealed to prevent road dirt contamination. A solenoid wired to the vehicle's starter is energized when the engine is started. This instantaneously drives the plug from the			

receptacle. An internal switch arrangement shall be provided to disconnect the load prior to ejection to eliminate arcing of the connector contacts. The shoreline shall be connected to the Klussmaul Pump Plus. A mating connector body shall also be supplied with the loose equipment. The shoreline receptacle shall be located on the driver side front bulkhead of body.			
SUB FEED CIRCUIT BREAKER BOX (SHORELINE) A Cutler Hammer sub feed box shall be supplied to protect the on board circuits when an auxiliary power source is used. The box shall be installed in the Exact location to be chosen later. The sub feed box shall distribute power to specific circuits in the vehicle. A directory for each breaker shall be provided adjacent to the circuit breaker panel. Identification of circuits shall be done in a durable manner that provides years of service.			
SWITCH, AUTO TRANSFER To protect either the generator or external power source from back feed, an automatic relay system shall be installed to switch the on line device between the generator and the external power source plug when it is connected for use. The transfer switch shall power the fluorescent light and the receptacle in compartment D2. Also, the 6-place receptacle strip and the (2) 15a standard blade receptacles in the command module and the A/C in crew area.			
LOOSE EQUIPMENT The following equipment shall be furnished with the completed unit: One (1) bag of chrome, stainless steel, or cadmium plated screws, nuts, bolts and washers, as used in the construction of the unit.			
PAINT The exterior custom cab and body painting procedure shall consist of a six (6) step finishing process as follows: 1. <u>Manual Surface Preparation</u> All exposed metal surfaces on the custom cab and body shall be thoroughly cleaned and prepared for painting. Surfaces that shall not be, painted include all chrome plated, polished stainless steel, anodized aluminum and bright aluminum tread plate. Each imperfection on the exterior metal surface			

shall be removed or filled and then sanded smooth for a smooth appearance. All seams shall be sealed before painting 2. Chemical Cleaning and Treatment The metal surfaces shall be properly cleaned using a high pressure and high temperature acid etching system. Surfaces are chemically cleaned to remove all dirt, oil, grease and metal oxides to ensure the subsequent coatings bond well. An ultra pure water final rinse shall be applied to all metal surfaces, excluding undercarriage components, at the conclusion of the metal treatment process. 3. Primer/Surfacer Coats - A two (2)-component urethane primer/surfacer shall be hand applied to the chemically treated metal surfaces to provide a strong corrosion protective base coat and to smooth out the surface. 4. Hand Sanding - The primer/surfacer coat shall be lightly sanded to an ultra smooth finish. *5.* Sealer Primer Coat - A two (2) component sealer primer coat shall be applied over the sanded primer. 6. Topcoat Paint - Two (2) coats of an automotive grade, two (2) component acrylic urethane paint, shall also be applied. All removable items such as brackets, compartment doors, door hinges, trim, etc. shall be removed and painted separately to insure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly shall be finish painted before assembly. The cab shall be two-tone, with the upper section painted white #10 along with a shield design on the cab face and lower section of the cab and body painted red to match #90 red.			
PAINT CHASSIS FRAME ASSEMBLY The chassis frame assembly shall be painted black before the installation of the cab and body, and before installation of the engine and transmission assembly, air brake lines, electrical wire harnesses, etc. Components that are included with the chassis frame assembly that shall be painted black are frame rails, cross members, axles, suspension, steering gear, fuel tank, body substructure supports,			

miscellaneous mounting brackets, etc.			
WARRANTY - PAINT AND CORROSION The cab and body exterior paint finish shall be warranted against blistering, peeling, bubbling, lack of adhesion or any other manufacturing or material defect for a period of six **(6) years**. The cab and body shall also be warranted against corrosion perforation for a period of ten **(10) years.** A copy of the manufacturer's warranty shall be included with the bid.			
COMPARTMENT INTERIOR FINISH The interior of the compartments shall be the natural aluminum finish. There shall not be any paint or other type of finish applied to the compartments.			
REFLECTIVE BAND A 10.00" white reflective band shall be provided across the front of the vehicle and along the sides of the body. A 4.00" band shall be provided at the rear of the apparatus.			
JOG (S) IN REFLECTIVE BAND The reflective band located on each side of the apparatus body shall contain one (1) jog(s) and shall be angled at approximately a 45 degree "s" when installed.			
REAR BULKHEAD REFLECTIVE STRIPE The reflective stripe shall continue from the sides, wrap around the rear body corners, and continue on the rear compartment bulkheads. The reflective vinyl band shall be provided across the front bumper.			
MOLDING (on sides of cab) Chrome molding shall be provided on both sides of cab.			
STRIPING The striping shall be totally encapsulated between two (2) layers of clear vinyl. A white pin stripe shall accent the stripe			
LAMINATION WARRANTY The manufacturer shall provide a three (3) year warranty against defects in material and workmanship with the graphics process. A copy of the fire apparatus manufacturer's warranty shall be included with the bid.			
GOLD LEAF BODY STRIPE A gold leaf stripe shall be provided on each side of			

the body, over the fender.			
CAB STRIPE There shall be one (1) gold leaf stripe, with endpoints, on each side of the cab over the fender. It shall include black outline with an accent stripe.			
LETTERING The lettering shall be totally encapsulated between two (2) layers of clear vinyl.			
LAMINATION WARRANTY The manufacturer shall provide a three (3) year warranty against defects in material and workmanship with the graphics process. A copy of the fire apparatus manufacturer's warranty shall be included with the bid.			
LETTERING Forty-one (41) to sixty (60) genuine gold leaf lettering, 3.00" high, outlining and shading shall be provided.			
GOLD LEAF LETTERING Forty-six (46) letters, 8.00" high, shall be provided. Lettering shall be genuine 22-karat gold leaf with an outline for accent. The lettering shall be installed to be determined later.			
REFLECTIVE LETTERING Sixteen (16) letters, 5.00" high white reflective letter/s shall be installed on to rear. The outline or shadow shall be a black.			
REFLECTIVE LETTERING ON ROLL-UP DOORS One (1) letter, 18.00" high letter/s, made of ruby red reflective vinyl, with outline or shade, shall be installed on the roll-up doors at "9" ON THE REAR ROLL UP DOOR			
REFLECTIVE LETTERING. ROLL-UP DOORS Four (4) letters, 9.00" high letter(s), made of ruby red reflective vinyl, shall be installed on the roll-up doors on the rear (SCFD).			

EMBLEMS A pair of emblems, 14.00” to 17.00” in size and featuring a “Taz Firefighter”, shall be provided and installed one each side on the crew cab doors. The design shall be color imaged			
MALTESE CROSS INSTALLATION There shall be one (1) pair of Maltese crosses, comprised of genuine gold leaf material, provided and installed on cab doors.			
MANUAL. FIRE APPARATUS PARTS Two (2) custom parts manuals for the complete fire apparatus shall be provided in hard copy with the completed unit. The manual shall contain the following: Job number Part numbers with full descriptions Table of contents Parts section sorted in functional groups reflecting a major system, component, or assembly. Parts section sorted in Alphabetical order Instructions on how to locate a parts The manual shall be specifically written for the chassis and body model being purchased. It shall not be a generic manual.			
SERVICE PARTS INTERNET SITE The service parts information included in this manual is also available on the factory website. The website offers additional functions and features not contained in this manual, such as digital photographs and line drawings of select items. The website also features electronic search tools to assist in locating parts quickly.			
MANUALS. CHASSIS SERVICE Two (2) chassis service manuals containing parts and service information on major components shall be provided with the completed unit. The manuals shall contain the following sections: Job number Table of contents Troubleshooting Front Axle/Suspension Brakes Engine Tires Wheels Cab Electrical, DC Air Systems Plumbing Appendix The manual shall be specifically written for the chassis model being purchased. It shall not be a generic manual for a multitude of different chassis and bodies.			

MANUALS. CHASSIS OPERATION Two (2) chassis operation manuals shall be provided.			
ELECTRICAL WIRING DIAGRAMS Two (2) electrical wiring diagrams, prepared for the model of chassis and body, shall be provided.			
ADDITIONAL EQUIPMENT: Installation of power unit equal to or better than a Holmatro, DPU60E-115V. Location will be determined at time of drawings.			
RADIO EQUIPMENT 1 Sigtronics intercom/radio headset system to include: Five (5) in cab connect stations. Five (5) Model HE-SE-8 headsets Two (2) Model AD-PRA-809 portable radio adapters to fit Motorola MTS 2000 radios One (1) radio interface to fit Motorola Mobil Radio, Model MCS 2000-III.			
MISCELLIOUS EQUIPMENT Five (5) each Streamlight, 20 watt “Lite-Box” flashlights/orange in color/ with vehicle charging bases. One (1) each 4A-60BC, 20lb. fire extinguisher with mounting bracket. Four (4) each 36” ling “Hallagan” Tools Four (4) each 36” long “TNT” Tools Two (2) each Hard rubber wheel chocks Four (4) each Pike head fire axes Four (4) each Undercutter type fire axes Two (2) each Nupla, D-handle, 8’ long pike poles, non-conductive handles with mounting brackets. One (1) each Super-Vac, Model 718GH4PPV, air exchanging device One (1) each Cutter’s edge saw with depth gauge and bullet chain. Include carrying case and one (1) extra-hardened chain. One (1) each Akron, Black Max, PIV with 6” FNST x 5” Storz Two (2) each Firepower, Model FP30, 100’ extension cords One (1) each Firepower, Model FP50, 3-outlet rollover block One (1) each Firepower, Model FP70, male pigtail One (1) each Firepower, Model FP80, female pigtail.			

Bid Response Form

03-0024

Rescue Truck

QTY	UNIT	DESCRIPTION:	UNIT PRICE	TOTAL PRICE
1	each	2003 Rescue Truck (Per attached specifications)	$_____	$_____
		Make_____ Model_____		
		Delivery Date (stated in weeks)_____		
			GRAND TOTAL	**$**_____

PRE-PAYMENT DISCOUNT

What percentage of discount would apply if prepayment made in the following amounts:

Prepayment of 25%, discount would be _____%

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Prepayment of 50%, discount would be _____%

Prepayment of 75%, discount would be _____%

Prepayment of 90%, discount would be_____%

Will the quoted prices be guaranteed for the purchase of additional units through December 31, 2003?

Yes____ No_____

Extend contract for an additional three (3), one (1) year contracts?

Yes_____ No_____

State per unit maximum increase for:

2004 Rescue (effective January 1, 2004) _____%

2005 Rescue (effective January 1, 2005) _____%

2006 Rescue (effective January 1, 2006) _____%

Sedgwick County reserves the right to select the bid, which best meets, its required needs and quality requirements

Bid Response Form
03-0024
Rescue Truck

All firms interested in bidding MUST provide two (2) copies of the following requested information on these pages and return with any supplementary materials. Responses are due NOT LATER THAN Tuesday, May 20, 2003, 1:45 p.m. (CDT). Attention: Carol Bevelhymer, Purchasing Department, 604 N. Main, Suite F, Wichita, Kansas 67203-3703.

The undersigned, on behalf of the Bidder, certifies that: (1) this offer is made without previous understanding, agreement or connection with any person, firm or corporation making a quotation on the same project; (2) is in all respects fair and without collusion or fraud; (3) the person whose signature appears below is legally empowered to bind the firm in whose name the Bid is entered; (4) they have read the complete Request for Bid and understands all provisions; (5) if accepted by the County, this quotation is guaranteed as written and amended and will be implemented as stated; and (6) mistakes in writing of the submitted bid will be their responsibility.

FIRM NAME_____

CONTACT_____

SIGNATURE_____ TITLE_____

ADDRESS_____CITY/STATE_____ZIP_____

PHONE_____FAX_____HOURS_____

TAXPAYER I.D._____

COMPANY WEBSITE_____E-MAIL_____

NUMBR OF LOCATIONS_____NUMBER OF PERSONS EMPLOYED_____

TYPE OF ORGANIZATION (CHECK ONE)

CORPORATION____ PUBLIC____ PRIVATE____ SOLE PROPRIETORSHIP____ PARTNERSHIP____

MINORITY BUSIINESS ENTERPRISE____ WOMAN-OWNED ENTERPRISE____ SMALL BUSNIESS ENTERPRISE ____

GENERAL NATURE OF BUSINESS_____

MANUFACTURE____ DISTRIBUTOR____ RETAIL ____ DEALER____ SERVICE____

WE ACKNOWLEDGE RECEIPT OF ADDENDUMS:

NO____ DATED:_____ NO____DATED:_____ NO____DATED_____